

ARROL & SNELL LTD

ARCHITECTS, SURVEYORS, PLANNING & CONSERVATION CONSULTANTS

ST. MARY'S HALL, ST. MARY'S COURT,
SHREWSBURY, SY1 1EG

TEL: (01743) 241111 FAX: (01743) 241142

www.arrolandsnell.co.uk

E-MAIL: admin@arrolandsnell.co.uk

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QUINQUENNIAL INSPECTION REPORT ON QUAKER MEETING HOUSE AT DOLOBRAN, NR. MEIFOD, POWYS



FOR THE TRUSTEES OF THE MID-WALES AREA MEETING OF THE
RELIGIOUS SOCIETY OF FRIENDS

SEPTEMBER 2016

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1.0 INTRODUCTION AND GENERAL DESCRIPTION

- 1.1 This condition inspection and report has been carried out on the instructions of Dr. Gethin Evans. The inspection took place on Thursday 29th September 2016. The weather at the time of the inspection was sunny / cloudy with a strong breeze.
- 1.2 The building was built at the end of the 17th Century and has the date of 1700 over its door. The land on which it stands forms part of the Dolobran Estate belonging to the Lloyd family and was given by Charles Lloyd in 1695 and the first monthly meeting was held in 1701, although the building was not yet roofed. The building is divided into two parts with the meeting house being roughly square in plan with a rectangular four room cottage standing to the west. The walls are constructed from locally made red bricks (9" thickness), built off a foundation of local field stone. The interior of the meeting house is lofty with the ceiling set at eaves level. Roof construction is oak and the roof is partly supported by an interval oak truss (set above the centre of the meeting house) and then by the brick cross wall subdividing the cottage from the meeting house, which also incorporates a flue for warming the cottage. This flue was subsequently expanded to incorporate a bread oven to serve the cottage which projects into the north-west corner of the meeting house.
- 1.3 The roof coverings are slate. Older random diminishing slating on the south facing pitch and slightly later regular reclaimed slating on the north facing pitch.
- 1.4 The brick wall construction survives intact on the north elevation and for the majority of the south elevation but on the west side it has been rendered over with a modern sand and cement render. The east elevation was taken down and rebuilt in 1997 at the expense of the Lloyd family and the Dolobran Estate. This later wall is again of 9" construction but the inner leaf of the wall is constructed out of modern grey bricks with the outer face being a mixture of original and reclaimed (to match existing) bricks.
- 1.5 The arrangement of the doors and fenestration on the south wall are interesting and it appears that the entrance door was originally quite large, possibly large enough for a pair of doors with two windows either side of the central opening set fairly high up so as to allow plenty of light to be thrown into the meeting house.

- 1.6 The meeting house has a loft / gallery structure introduced across the east side of the room consisting of a large oak beam spanning north-south which supports a series of joists built into the east wall and cantilevering out into the room. These now terminate with a modern oak girding beam which supports modern oak panel. The position of this ancient oak support beam is such that it sits tight against the jamb of the south-west window on the south wall.
- 1.7 A full height oak post is built against the south wall directly under the bearing of the roof truss. This appears to be a later insertion which may account for the shortening of the width of the entrance doorway and the partial bricking up of the wall below the arch lintel which sits above the present entrance. This may have been thought necessary in the light of the thinness of the brick pier separating the south-west window from the central entrance and the possible fear as to the bulging of the brickwork at that point given that this pier also had to take the roof truss load.
- 1.8 The adjoining cottage consists of a ground floor sitting room with a small rear kitchen space (with access to the bread oven) and which also houses a very narrow and tight winding stairway leading to the upper floor.
- 1.9 At the first floor landing there is a small landing space with sufficient room for a single bed which is separated by a studwork partition from the principal bedroom. The furnishing of the cottage is simple and basic and the kitchen equipment is simple but effective. There is no bathroom in the cottage but there is an outdoor WC located in a wooden hut to the east of the meeting house.
- 1.10 The renovations of the 1990's meant that electricity, water and drainage connections were provided with the drainage connected to a cess tank located in the woodland beyond the east side of the meeting house.
- 1.11 The meeting house flooring consists of mahogany strip boarding recycled from shipping freight containers. The ground floor of the cottage appears to be a modern concrete floor with quarry tile surface and the first floor of the cottage is oak boarded.
- 1.12 The majority of internal finishes retain the early plaster with many layers of lime wash, subsequently over painted with white emulsion paint. Some new walls were inevitably replastered but with a sympathetic sand and cement plaster giving a rough finish with an ancient appearance. Some

sections of wall (on the west side of the interior of the cottage) are lined out with plasterboard and certain sections of ceiling have been also renewed with plasterboard, although lath and plaster does survive in one half of the meeting house ceiling.

- 1.13 The external doors and windows were all renewed in the 1990's and the roof coverings were stripped and recovered in the 1970's.
- 1.14 The meeting house is in regular use and the cottage is regularly occupied by tenants on a short term basis. The garden to the south of the meeting house is well kept and well maintained and the location of the meeting house is both charming and peaceful, standing at the end of a fairly long green lane leading from Dolobran Farmhouse. This lane was clearly a metalled or cobbled highway at one stage and must have been one of the principal roads in the area at the time when the meeting house was built. It is a farm access track today and is essentially a "green lane", though drivable with care.

2.0 EXTERNAL COMMENTS

2.1 Roof Coverings

2.1.1 *South facing roof pitch*

2.1.1 Random and diminishing slate. The slating generally robust and of reasonable thickness and all apparently stripped and re-clad in the 1970's judging by the fact that there is now bituminous felt underlay which suggests a completely new set of battens and the possibility that the slates are now nailed in place. The general "lie" of the roof is reasonable given the age of the property, but irregularity is discernible and there are sections of roof with gapping between individual slates and a number of places where there are slightly slipped slates or where slates have broken away and left gaps. It would therefore be sensible to have the pitch inspected by an experienced slater to ensure that a number of small routine maintenance actions could be carried out and any loose or slipped slates should be replaced and a careful check should be made of the fixity of slates, especially at ridge level.

2.1.2 There is a noticeable dip down towards the south-west corner of the eaves slating which means that the eaves guttering runs "downhill" quite sharply towards the south-west corner. This may suggest some earlier movement of roof structure, but at the present time all appears secure.

2.1.3 The ridge tiles are old handmade red clay tiles all apparently in reasonable condition and with the pointing between individual tiles still reasonably intact, although a number of joints are now starting to wear thin but in due course lifting, rebidding and repointing of the ridge tiles may be required.

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2.1.4 There are gable rafters which in turn support barge boards, located at each gable end. The barges are oversailed by the slating and the gap between the under cloak and the roof slating is then pointed up. The verge pointing at the eastern end of the south facing pitch is all now quite loose and starting to fall out and ought to be taken out and renewed. The verge pointing at the west end of the roof pitch appears to have been repointed several times in the recent past so that it is in better condition than the east end verge pointing, but nevertheless is also starting to fail, given that it is in a much more exposed location so that repairs here cannot be put off for too long.

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2.1.5 The chimneystack serving the cottage sits mainly into the rear north facing pitch but it is visible from the south side. This is constructed of modern brickwork (1990's?) and has a substantial lead saddle flashing in lead which appears to be in reasonable condition, interrupting the line of the ridge tiles.

2.1.6 At eaves level the rafter ends and oak wall plate are visible from below but are partly concealed by empty bird ingress netting which closes off the eaves space and denies access to small birds trying to enter the roof void above the meeting house and the cottage. The bird guarding appears to be in reasonable condition and although there is extensive evidence of old nests in the roof void above the meeting house, there does not appear to be any bird entry at present.

2.1.2 *North facing roof pitch*

2.1.2.1 Slated with regular spaced blue / grey slates and generally in good condition apart from one slipped slate at the bottom of the slope, at the north-east corner. There is some "humping" where the slating passes over the head of the brick wall separating the cottage from the meeting house, but the fixity of the slates is good.

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2.1.2.2 The ridge tiles are as previously reported and the modern brick chimney fits into the north slope at the head of the pitch. The brickwork of the chimney is generally reasonable but it is possible that some repointing / remaking of the flaunching around the chimneypot may be necessary

(difficult to inspect from ground level). At the base of the chimneystack are good quality stepped lead flashings and apron flashings all in reasonable condition.	5
2.1.2.3 Once again, the roof slope dips down towards the east which results in the rainwater gutter descending sharply eastwards as it goes.	
2.1.2.4 The verge pointing of the slating on the east gable verge is also starting to show signs of degradation and cracking and sections are starting to fall out so that it will probably be sensible to renew this at the same time as the adjoining verge is renewed on the south slope. The verge pointing to the west end of the north pitch is in better condition but once again a number of interval cracks have appeared so that it may be necessary to renew this pointing in due course.	5
2.1.3 <i>Barge boards / gable rafters</i>	
2.1.3.1 These are clearly 1970's in origin and are painted softwood. They are for the most part, in reasonable condition but the terminations of the barge boards at eaves level all show signs of wet rot damage and sections of paintwork are bubbling and peeling away in places, notably on the east side. It would therefore be sensible to carry out a ladder inspection and if necessary, make some joinery repairs followed by a full redecoration of all these elements in both the east and west gables.	5
2.2 Rainwater Goods	
2.2.1 There are relatively small sized half round cast iron gutters at the foot of the north and south pitches which are linked to 3" cast iron downpipes. The rainwater goods are well cared for and reasonably well decorated (especially on the south side) but it is quite possible that the gutters are not adequate to cope with the kind of severe rainfall that we are now starting to experience in Britain. Thus if they were to overflow they could cause the brickwork below to be saturated and increase dampness in the cottage and the meeting house. The sensible thing to do would be to carry out an observation of how well the gutters work during a period of heavy rainfall. It may be necessary to increase the size of the gutters if they are not good enough at catching all the rainwater.	R
2.2.2 A certain amount of leaf debris and small plants has built up in the gutter on the rear north side and this should be cleaned out.	1

2.3 External Brickwork

2.3.1 South Wall

2.3.1.1 The majority of the south wall brickwork is in good condition. All clearly repointed in the 1990's, unfortunately using a cement rich sand and cement mortar. This is unfortunately starting to cause damage to an area of brickwork between the meeting house doorway and the cottage doorway which appears to have suffered from a combination of salt and frost damage in the past. The face of these bricks has now been eroded away and the surface plane of several of the bricks is now set well back from the surface of the cement mortar suggesting that there has been quite a loss of material in the last fifteen years or so.

2.3.1.2 It is possible that frost damage might have occurred here as a result of a faulty gutter in the past and it is equally possible that an eruption of salts could have caused efflorescence leading to damage of individual bricks.

2.3.1.3 The sand and cement pointing will therefore have to be removed and the walls and vulnerable areas, repointed with lime mortar and I suggest that the condition of these damaged bricks should be monitored for the next two or three years to see whether the situation has stabilised or whether this is a progressive decay problem.

2.3.1.4 It would appear that the external walls of the cottage and meeting house were at one time all lime washed and that the colour of the lime wash that was used varied in the past between pink / rose colour and a yellow ochre colour.

2.3.1.5 The structural condition of the south wall is essentially sound, although it has been stabilised by means of iron pins and wall ties connected to the internal post sitting under the end of the roof truss. This is apparently in response to a small amount of outward bulge of the brickwork between the meeting house doorway and the easternmost window of the meeting house. Judging by the way in which the plates for the upper tie have been made, this was probably undertaken fairly early on in the 19th century. There are no obvious signs of structural movements or cracks anywhere in the wall at present and the pointing is generally intact suggesting that a fairly major overhaul must have been undertaken in the 1990's. This probably included the introduction of a Catnic steel lintel above the entrance to the meeting house. The tip of this lintel is just visible in the bedding mortar.

2.3.1.6 All window and door openings have lintels formed as cambered brick arches and the two windows and principal doorway into the meeting house both have brick label courses projecting above each opening. Some of these details are intact and still in good condition.

2.3.1.7 The foundations of the front wall are not easy to see because of the high ground and planting, but they are probably similar to the rubble stone walling visible at the base of the north wall. I could not see any ventilation ducts or apertures in the wall of the meeting house but would expect to see something of this sort in order to provide ventilation to the suspended floor internally (see later comments). It might be sensible to lower the external ground level to provide air vents to ventilate the subfloor void or else to install vertical ducts.

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2.3.1.8 I note that common ivy has started to grow up a section of the south wall and I recommend that this should be removed as soon as possible as this is the kind of plant that does do damage to brickwork quite quickly.

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2.3.2 *East gable wall*

2.3.2.1 New wall entirely rebuilt in the 1990's using a mixture of reclaimed bricks and new matching bricks (some ancient and some from contemporary brickwork). Bond is English garden wall bond and it is clear that quite a number of new bricks were used as headers. When viewed from inside the roof space, it is clear that the inner leaf is formed from modern grey bricks. The wall is plumb and secure and free from cracks. No doubt it was provided with a new modern foundation at the point when it was built, although this is not visible externally. Once again there is an opportunity to install some air bricks or ducts to provide ventilation to the sub floor void of the meeting house.

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2.3.2.2 The rebuilding of this wall terminates with a small pier at the north-east corner projecting northwards and the new work also bonds into the existing south wall for a short distance.

2.3.3 *North external wall*

2.3.3.1 Because the meeting house is built against a steeply rising bank, the north wall is built off a rubble stone plinth and the ground is then held back by means of a dry stone rubble wall acting as a retaining structure. This varies in height from approximately 3 feet at the eastern end and rises to almost 7 or 8 feet at the west end. The upper surface of the projecting plinth course is rendered over with sand and cement to allow rainwater to drain clear of the stonework.

2.3.3.2 The brickwork above plinth level is all original and in generally good condition and entirely repointed with sand cement in the 1990's. There are no signs of any structural movements or cracks and the bricks are generally free from frost damage and the like, although there is a curious "dark" section of brickwork at the cottage end of the wall which gives the appearance of being wet or damp, although the wall surface is dry to touch. This may be due to algal staining?

2.3.3.3 There is a single door opening in this elevation giving access to the gallery and this is linked to a modern oak external stairway rising from a concrete and brick wall platform set into the opposite bank. The brick walls enclosing the concrete landing are in reasonable condition and are of modern brick with the pointing regime still intact. Concrete landing also in reasonable condition.

2.3.3.4 The oak stairway is serviceable and safe to use at present but does suffer from decay and wet rot damage, especially to the bearings of individual steps where they are tenoned into the strings of the stairway. There is a small "wobble" to some of the balustrading, again due to wet rot attack of joints etc.

2.3.3.5 It is difficult to see how the stairway can continue to be repaired with economy in mind and it might be sensible to opt for a new stairway in a more resilient material requiring less maintenance and capable of a longer life and it ought to be possible to fabricate something in galvanised steel to a sympathetic design which can then be painted if desired.

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2.3.4 *External rendered brickwork – west gable*

2.3.4.1 It would appear that the original brickwork gable has been rendered over with sand and cement - perhaps in the 1990's? Sections of the sand and cement render are falling away at the base of the wall and large areas are now quite hollow and voided and will also fall off in due course. The render has been painted externally with masonry paint. The majority of the wall is in reasonable condition but there are difficulties at the base, almost certainly due to rising damp and salt attack.

2.3.4.2 It was probably thought necessary to render this wall due to it being west facing and therefore receiving the bulk of wind and rain. It is therefore sensible to carry on with a rendered and painted wall but some renewals at low level are inevitable. As and when the rendering is renewed at the

<p>bottom it should incorporate a bell cast moulding to ensure that rainwater is thrown clear. An appropriate mortar / plaster specification should be used so that the render is both breathable and also salt resistant if possible.</p>	5
<p>2.3.4.3 There is a small passageway at the base of the wall where the adjoining bank has been dug away and I note that accumulations of debris and soil are starting to build up in the slot at the base of the retaining wall. It would be a good idea to dig out all surplus material to ensure maximum breathability of the external wall structure and to reduce the risk of internal dampness.</p>	5
<p>2.3.5 <i>External retaining wall structure</i></p>	
<p>2.3.5.1 This is a field stone rubble wall of dry stone construction, mostly in reasonable condition but here and there sections have fallen away and are becoming loose so that it would be sensible to carry out some repairs to the structure in the not too distant future. If the slots were to be dug out at the same time, it might then be possible to install a French drain around the back of the meeting house and cottage and also along the base of the west wall which would allow any rainwater run-off from surrounding banks to be taken well away from the building. This might assist with reducing long term effects of rising damp in the building.</p>	5 / R
<p>2.3.6 <i>External window and door joinery</i></p>	
<p>2.3.6.1 This is all of oak construction dating from the 1990's and stained with a dark oak stain. The joinery of the windows and doors is all in generally good condition requiring only routine redecoration.</p>	5
<p>2.3.6.2 The putties of individual window openings should be carefully inspected as there are clear signs of bird attack, pecking away at the putty of those windows which are glazed with putty i.e. the west elevation windows, the east elevation window and the small area of glazing in the gallery door. It would therefore be sensible to inspect each of these openings and make good the putties as necessary, then if possible over paint the putties as this deters bird damage in the future.</p>	5
<p>3.0 INTERNAL COMMENTS</p>	
<p>3.1 Roof void above Meeting House</p>	
<p>3.1.1 This is approached via a small trap door accessible from the gallery. The roof space is sub-divided by a Queen strut truss (oak) which supports two tiers of purlins and ridge beam (all oak). All the common rafters are oak and appear to be</p>	

continuous from ridge level down to wall plate level. The carpentry of the oak truss is sound and the oak members are generally in good condition and structurally sound. Some small amount of woodworm activity is evident on sapwood sections of individual members but there is no serious deterioration of any of the heartwood. A reasonably good selection of oak was made but some members were taken from the edge of the tree so they do contain quite a lot of sapwood and their section has therefore been diminished. There are two rafters of this kind at the east end of the south pitch but some reinforcement has been made with new softwood rafters, presumably at the time when the building was re-roofed.

- 3.1.2 The north and south roof slopes are both covered over with bituminous roofing felt which all appears to be in good condition and there are no signs of any holes or leaks. There are no signs of any nail projections from battens either so it is possible that the roof slopes were cross battened before being slated.
- 3.1.3 The centrally positioned Queen Strut truss supports a series of ceiling joists spanning from the truss onto the wall separating the meeting house from the cottage or the east gable wall of the meeting house. All of the ceiling spanning between the east wall and the central truss is of modern plasterboard construction fixed to softwood joists but the remainder of the ceiling spanning between the central truss and the cottage wall appears to be the original design made up of substantial oak ceiling members (possibly reused?) under drawn with lath and plaster. This means that the soffits of the two ceilings are not in a similar alignment and the old ceiling (which is quite irregular in shape) is therefore slightly higher than the newer eastern ceiling.
- 3.1.4 There is ample evidence of bird infestation from the past which has never been cleared away although there is no current evidence of any bird ingress at present. Some heaps of nesting material may be responsible for some distaining of the ceiling plaster in the older half of the ceiling.
- 3.1.5 There is no thermal insulation whatsoever in the roof and it might be sensible to include this but only after the ceilings have been carefully cleaned out and it would also be sensible to install a walkway boarding system to make sure that when people access the roof space, they did not inadvertently put a foot through the ceiling.

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- 3.1.6 There is no triangulation to the roof structure but there is no sign of any swaying or tilting of the structure and as it is now firmly engaged by the newly rebuilt east gable wall, it appears to be in a stable condition. When the east wall was reconstructed, gable straps were introduced to connect the east wall to the purlins and rafters at the east end of the roof and there are also ties onto the modern ceiling joists to help restrain the ceiling and roof structure against the east wall.
- 3.1.7 The east gable wall is all modern calcium silicate grey brick (in reasonable condition) and the west wall is the division wall between the cottage and the meeting house. This wall is built up to the underside of the roof but a large gap has been left big enough for a person to clamber through (purpose unknown). Additional struts and braces have been installed to provide sufficient support to the ridge beam where the opening has been made. All of the brickwork of the cross wall is old. The modern brickwork of the chimney structure does not start until the chimney has pierced the roof.

3.2 Meeting House Interior

- 3.2.1 The interior of the meeting house has a square plan and is lit mainly from the south side although there is a high level window on the east side lighting the gallery space. There are four (blocked) openings in the brick wall separating the cottage from the meeting house which were apparently originally equipped with shutters and would have enabled the cottage to be used as overflow accommodation for people wishing to attend the meeting on occasions when there was not enough room in the meeting house itself. All four openings are now blocked although the frames for the openings are still visible. The one immediately next to the bread oven has been infilled with masonry as part of the construction of the bread oven itself.
- 3.2.2 All four walls enclosing the space are of brickwork construction. That of the east is obviously modern and it is therefore plastered over with new sand and cement render and is therefore generally free from rising damp, cracking or blemishes, although there are slight thermal expansion cracks in the render at the south-east corner of the room and also some horizontal and vertical cracking at the east end of the north wall where it would appear that new work joins on to old work. None of these cracks give rise to any concerns as to structural movement and they are more likely to do with shrinkage cracking when the new construction work had dried out.

- 3.2.3 It therefore follows that the north and south walls (both external) and the western (internal cross wall) all retain much of their original plasterwork finish and although all surfaces are now painted with emulsion paint, the earlier lime wash coats are clearly visible.
- 3.2.4 The structural condition of the south wall is generally good, although it has clearly been braced by the introduction of the storey height post set below the bearing of the tie beam and as discussed earlier, this is probably a response to local bulging of the brickwork in that area.
- 3.2.5 There are a number of small vertical cracks in the west wall directly above the bread oven and these may be attributable to the presence of the flues for the ground and first floor fireplaces which are here built into the cross wall. These cracks appear to be fairly ancient and do not appear to be progressive, but they are nevertheless “grinning through” later decorations and they should therefore be noted and monitored to see whether they are currently stable or whether there is any ongoing movement.
- 3.2.6 The north wall is sound and free of structural movement or cracking, apart from the vertical cracks noted beneath the gallery at the abutment with the east wall. The cracks extend down to floor level and rise up to the underside of the gallery and it is just possible that these may be attributable to a difference in foundation design where the newly built east wall joins on to the previously existing north wall. Some pencil marks with dates have been made on the cracks which have been annotated with the date, 25th April (but it does not give the year of the observation!) A series of record photographs was taken of all the cracks and it would be sensible to keep a log book detailing the findings and dates when the cracks are inspected so that they can be monitored regularly and then a decision taken as to whether there is any progressive movement or not.
- 3.2.7 The internal plasterwork and decorations are generally reasonable but do suffer from some degree of staining and salt damage at low level as a result of rising damp issues. However, there is nothing really serious and no need for any remedial action at present.
- 3.2.8 At the base of the north wall is a projecting plinth structure which may well be part of the foundation design viewed externally. This projecting plinth or bench extends into the cottage as well and is therefore a consistent part of the

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north wall. Whether this is constructed from stone or brick it is difficult to say as all surfaces are plastered over.

- 3.2.9 The flooring of the meeting house is all mahogany strip boarding, apparently reclaimed from shipping freight packaging or containers. The mahogany boarding is sound and in generally good condition but it was not possible to inspect any of the subfloor void or floor joists supporting the floor. These are slightly uneven and no doubt partly ancient. It would be helpful if there was a trap door to allow a subfloor void inspection and in particular, it would be sensible to ensure that there was some form of subfloor ventilation (which should be made vermin proof) so that the timber floor structure can avoid the risk of any wet rot damage.
- 3.2.10 As I mentioned previously, it would also be sensible to install a French drain around the north and west sides of the building to collect any rainwater running down into the gulley to the rear of the building.

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3.3 The Gallery

- 3.3.1 The gallery is supported off an old oak spine beam with oak joists cantilevering forward in the manner of a jetty. An oak edge beam has then be fastened to the projecting joists and this provides support for an oak panelled balustrade with a modern steel guard rail above. The gallery is then boarded out with new oak boards. All of this is in generally sound condition.

3.4 Other Internal Observations

- 3.4.1 There are a number of really interesting old benches, some of them of early to mid-19th Century origin but all apparently constructed from pine or softwood. Benches are in generally reasonable condition given their age and well cared for.
- 3.4.2 There is good quality daylight in the room which is also lit by four pendent light fittings enclosed in paper globes.
- 3.4.3 There is no permanent fixed heating in the building, although an electric fire is available.
- 3.4.5 There is a two litre foam spray fire extinguisher located next to the entrance door installed in 2015 and inspected in March 2016.

3.4 Cottage Interiors

3.4.1 Cottage Roof Space

3.4.1.1 In many respects similar to the roof space directly above the meeting house. There is a peculiarity with regard to the west gable brickwork wall. The upper section of the gable has been corbeled out into the roof space as a continuous cantilever for the full height of the gable. Perhaps this is to provide additional support for the ridge beam bearings and the purlin bearings? The brickwork does not cantilever externally, only internally and this is an unusual feature.

3.4.1.2 The same system of two purlins and ridge beam continues through into this space but the ceiling joists for the room below are set much higher than that of the meeting room and this allows a two-storey structure to be incorporated within the cottage. The ceiling joists are a mixture of new and old structure which appear to have been underdrawn on the underside in order to allow modern plasterboard ceiling to be introduced into the dwelling. This plaster boarding extends down the underside of the inclined rafters so that each of the first floor rooms has a flatbed ceiling as well as an inclined ceiling (all in modern plasterboard).

3.4.1.3 There is no thermal insulation in the roof void. This should be provided.

3.4.1.4 As previously reported, the undersides of the later roofs have all been felted with bituminous felt and there are no signs of any roof leaks or water ingress.

3.4.2 Cottage Roofs

3.4.2.1 The external and internal walls are all of brickwork construction including the 4 ½" brick partition wall separating the two first floor rooms and two ground floor rooms. Although the external walls are of solid 9" construction, a large amount of the internal surface appears to be hollow in that some form of internal dry lining plasterwork has been used in the past. This could either be old lath and plaster or modern plasterboard construction or in some cases, it could even be where the old plaster has worked loose from the wall giving the impression of there being a void.

3.4.2.2 The ground floor sitting room external and internal walls are all lined with modern plasterboard and presumably this is fixed to battens fixed against the external walls. This arrangement appears to be working well from the point of view of avoiding damp plasterwork internally and it must also provide some degree of thermal insulation.

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- 3.4.2.3 It is quite difficult to say whether the hollow sounding plaster upstairs is the result of old dry lining or simply where old plaster has worked loose, perhaps a mixture of both? All of the internal plaster finishes at first floor level are ancient and extremely uneven (with the exception of the ceilings). Nevertheless they are largely free of cracks and splits although the surfaces are rough and uneven. This suggests a good degree of structural stability within the building.
- 3.4.2.4 At first floor level, on the north and south walls, the wall plaster is laid directly on to the external brick walls except for a section approximately 15" high at the base of the inclined ceilings where there appear to be short timber studs fixed to the undersides of the rafters concealing the eaves void and this structure appears to have simply been plastered over with lath and plaster thus there is a slight change in surface and geometry at the point where the two plastered surfaces meet.
- 3.4.2.5 At ground floor level the plastered surfaces are generally flat and even resulting from the use of internal plasterboard linings. Generally speaking these surfaces are in reasonable condition except for slight areas of damage adjoining the external entrance doorway and to either side of the fireplace where the lining system does not affectively eliminate all rising damp. Local repairs are needed here.
- 3.4.2.6 In part this is caused by the fact that there are quarry tile skirtings throughout the ground floor directly connected to the quarry tile floors. It is likely that the quarry tile floors are all based on a concrete slab (hopefully incorporating a damp course) and although this results in a dry floor and dry skirtings, it will have the tendency to divert ground water sideways into the base of the external and internal walls which in turn can promote rising damp and salt efflorescence at the base of the wall.
- 3.4.2.7 This does appear to be causing a slight problem to either side of the hearth and also on sections of wall plaster at the foot of the stairway.
- 3.4.2.8 By contrast the internal plastering of the ground floor kitchen area is appears to exist entirely all of old plaster but with some renewal on the west wall adjoining the stairway. The old plaster here is all in quite poor condition and somewhat rough in places. Nevertheless this does add to the "rustic charm" of the interior!

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- 3.4.2.9 Rising damp is certainly present within the stone plinth to the rear of the kitchen units and presumably also under the stairway but this does not appear to be a serious problem and there are no obvious signs of timber decay or serious failure of plaster and decorations.
- 3.4.2.10 The first floor floor structure consists of oak boards (almost all of them ancient) laid over oak joists of a relatively slender cross section. The kitchen joists substantially smaller than in the sitting room. All of the structure is in good condition and the boards (though quite old and worm eaten) are nevertheless perfectly serviceable.
- 3.4.2.11 Ceiling plaster between the joists in the sitting room is in reasonable condition whereas in the kitchen area, there are only small areas of plastering so that the boards of the room upstairs are exposed directly to below.
- 3.4.2.12 The bread oven structure (apparently a later addition into the building) intrudes partly into the kitchen area but is mainly located in the meeting house itself. The structure appears to be sound and it is unclear whether it is still connected to the flue and should therefore not be used.
- 3.4.2.13 The interior of the cottage has a simple but effective electrical installation (last inspected in July 2016). There is running water and an instantaneous electric hot water over the kitchen sink and a relatively modest amount of provision in terms of power outlets and light fittings. It is clear that the cottage is equipped for only a small number of persons staying for short periods of time.
- 3.4.2.14 The ground floor sitting room has a working fireplace and there are also portable electric heaters available for use in the bedrooms. Thermal insulation in the loft would certainly improve efficiency of use and thermal comfort in the house during the winter months.

4.0 CONCLUSIONS

- 4.1 The Dolobran Meeting House and its attached caretaker cottage possess great charm and a striking sense of individuality and "place". Its tranquil setting and the sense of withdrawal from the urban world are very striking.
- 4.2 The buildings retain much of the original 1700 date character and fabric and by and large the quality of the 1970's and 1990's repair work has been good and effective.

- 4.3 There are no particularly challenging or worrying aspects with regard to the condition of the fabric. Although some cracks are present in certain walls, these do not give rise for concern at present and it would therefore be prudent to carry on monitoring them to see if they expand or contract with a view to deciding whether or not they are stable or progressive.
- 4.4 There are one or two maintenance issues with regard to roof slating and the verge pointing of the slating and possibly also some of the softwood barge boarding at the gable ends of the roofs.
- 4.5 It might in due course, be sensible to replace the oak staircase leading to the gallery and it would certainly be worth considering introducing thermal insulation into the roof voids (after first of all cleaning them out).
- 4.6 If a French drain were to be introduced around the north and west sides of the building, this would decrease the risk of internal dampness. It would also be sensible to make an access trap door into the floor of the meeting house so that the subfloor void could be inspected and then depending on what is found, it might then be sensible to install some air vents to make sure the subfloor void was properly ventilated.
- 4.7 Although some aspects of the interior are a bit on the "primitive" side it is clear that the meeting house and the cottage are perfectly functional and cater adequately for all the user's needs.
- 4.8 The basic structure of the brickwork and roof is sound and I do not consider there to be any serious threats to its long-term wellbeing at present. It would be sensible to monitor the condition of some of the external brickwork on the south elevation to see whether the cement pointing is causing long term damage or not, but apart from that, the external wall fabric is in reasonable condition (although some areas of external render on the west gable will need to be renewed).
- 4.9 All together a charming and wonderful building in a beautiful location which is clearly well loved and well cared for.

5.0 RECOMMENDED REPAIR PRIORITIES

5.1 Recommendations for Immediate Repair

5.1.1	Carefully go over south facing roof pitch replacing any slipped or broken slates (work by experienced roofer).	500
5.1.2	Clear away leaf debris and small plants from the north side rainwater gutter.	Nil
5.1.3	Cut back common ivy growth from south wall.	Nil

5.2 Recommendations for repairs to be carried out within the first five years of the quinquennium

5.2.1	Cut out and renew verge pointing at west and eastern gable ends of the building.	750
5.2.2	Carefully inspect high level flaunchings of chimney pot and make good flaunchings as necessary.	250
5.2.3	Carry out joinery repairs and redecoration of barge board / gable rafters to the east and west gables.	500
5.2.4	Cut out damaging sand cement pointing to central section of south wall and replace with lime mortar to eliminate the ongoing risk of salt damage to the bricks.	600
5.2.5	In view of the fact that the rear oak staircase is starting to decay, obtain the necessary consents and install a new welded painted / galvanised steel stairway.	3000
5.2.6	Carry out render repairs to west gable incorporating salt resistant render and a bell cast moulding.	350
5.2.7	Dig out surplus material blocking the rear passageway around the base of the west and north walls.	Nil
5.2.8	Carry out repairs to external retaining wall flanking the rear passageway and at the same time install a French drain to allow rainwater to be properly disposed of from this area.	3500
5.2.9	Carry out routine redecoration of all external doors and windows.	500
5.2.10	Carry out local repairs to putties of individual window openings.	50
5.2.11	Allowance for providing thermal insulation to roof voids of meeting house and cottage.	2000

- 5.2.12 Carry out local plaster and decoration repairs to ground floor level plaster surfaces in cottage.

250

5.3 Recommendations for long term wellbeing of the Building

- 5.3.1 Monitor the condition of the ridge tiles and the mortar joints between individual tiles as in due course they may need lifting and re-bedding.
- 5.3.2 Carry out a check on the volumetric capacity of the gutters to see how they cope with high quantities of rainfall and if necessary, contemplate replacing the gutters to a larger size.
- 5.3.3 Consider the installation of ventilation ducts to ventilate the suspended timber floor of the meeting house and also provide trap door access to allow the floor void to be inspected.
- 5.3.4 Introduce a monitoring system to monitor the size of cracks in the meeting house walls north and east.

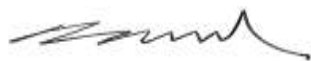
6.0 SCOPE OF THIS REPORT AND AREAS NOT SURVEYED

The Scope of the Report	This report is based on the findings of an inspection made from the ground, other readily accessible points of access and from ladders on site.
Areas not Surveyed	It is emphasised that the inspection has been purely visual and 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 any such part of the property is free from defect.
High Alumina Cement	With regard to the question of High Alumina Cement, although it is extremely unlikely to be present in any part of the building, it must be stressed that investigations were not carried out to determine whether High Alumina Cement was used during the construction or alteration of the building inspected and it is not therefore possible to report that the building is free from risk in this respect. In view of the possible potential damage connected with High Alumina Cement concrete, it is recommended that the appropriate investigations, inspections and tests be carried out by a suitably qualified engineer.
This is NOT a Specification	The report is not a specification for repair works to be carried out and is in no way to be used, read or taken as such.
Implementation	In Schedules of Recommendations.

Distribution:

Trustees of the mid-Wales area meeting of the religious Society of Friends
c/o Dr. Gethin Evans – Two Copies

Copies have been retained by the Consultant Architect.



Signed

ANDREW ARROL
ARROL & SNELL LTD
SHREWSBURY