

# ANDREW HADWIN

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**Report on Kerris Manor Farmhouse**

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I am roofer and have been re-roofing both modern and traditional buildings in West Cornwall for 52 years. I am very experienced in both wet and dry laid slate roofs having re-roofed thousands of roofs in my career, for private home owners, landlords and the local authority.

I have been asked to provide my opinion on the current condition of Kerris Manor Farmhouse roof. The roof is approximately 120 years old and it will be at least the second roof this building has assuming it was constructed in 1721 as per the date stone above the front door. In my experience, the current roof will have been put on at the turn of the 19<sup>th</sup> century. I can categorically say this as slates, wooden pegs and batons would never last 300 years in the condition that they are in. In addition, the ridge tiles are indicative of being put on at that time as more ornate ridge tiles were used then. These would not have been available in 1721. These factors give me significance confidence that this is definitely not the original roof covering.

Having inspected the roof closely from the scaffolding, it is very clear that the wooden pegs have rotted and deteriorated. In addition the heads of the many of the thinner slates have deteriorated to an extent that they have already crumbled, lost the peg hole or are powdering. The condition of the thicker gage slates is better, and many will be able to be re-used.

The mortar has lost its adhesion in most places and the slates are coming free with the lightest of pressure. At present, gravity and the weight of the slates are the only things holding the roof on top of the house. Due to the deterioration in the materials, it is not possible to repair the roof without stripping off the slates first.

I believe that about at best 50% of the slates from the farmhouse could be salvaged, where the head of the slate hasn't deteriorated and gone flaky. Some slates are thicker than others and these should be reinstated, the thin ones are very fragile and even if they still have a hole, should not be reinstated as they will fail over a much shorter course of time leading to potential damage to the roof again. Due to the mortar having deteriorated so much however, most of the slates are coming off clean which will aid the salvaging process.

We propose to re-roof the east, south and western roof elevations with salvaged slate from the existing farmhouse roof as these are the most visible elevations from the track and footpath. The inner courtyard and northern elevation would be re-roofed in other slate to match as closely as possible to the existing slate.

## Method statement

The Scaffold is already erected to aid inspections and for safety as without it the loose slates are a significant danger to anyone walking around the bottom of the house. The scaffold is now catching those that are falling off. Before the works commence, the scaffolding will be over covered.

We will carefully remove the existing all of the ridge tiles and set aside for re-use. It is likely that every one can be re-used. We will then carefully remove the existing slate and set aside all of the intact ones that are in good condition for cleaning and re-use.

We propose to repair any defective roof timber with like for like materials as necessary.

We proposed to felt and batten the roof with breathable membrane. Using 25 x 38" battens going horizontally across the membrane and fastened down to the rafters with galvanised nails. We would then lay the reclaimed slate bedded in a lime based mortar mix specified by Cornish Lime Company fixed with one copper head nail. Unfortunately it would not be possible to use timber pegs because due to the age of the reclaimed slate that we will be using, the peg will not hold in the slate as the holes are too soft due to their age to keep gripping the peg for a prolonged period of time. If we use pegs the slates would just fall out again. The same procedure will be done across the roof for the old and new slate.

The lead in the valleys would be renewed, and then the retained ridge tiles bedded back on using the same lime mortar.

All verges and wind spurs would be finished in two coats of the same Lime Mortar.

Hand tools will be used throughout apart from a nail gun to fix the battens to the rafters to avoid damage causing to other elements of the building. In my experience, when a handheld hammer is used, this means successive percussions are used against the building fabric and this often causes damage to the fragile ceilings below. Using a nail gun with just one blow per slate reduces the number of 'bangs' by on to two thirds as it normally takes two to three knocks with a handheld hammer

Any cutting of slate will be done in a traditional manner using a slaters sax this will be minimal but necessary for verges etc.

Order of re-roofing elevations:

The roof will be undercover of scaffolding. The whole roof will be stripped off and we can then assess what reclaimed slate we will have which will be cleaned carefully.

We plan to repair the front east elevation first, then the side western elevation using existing slates from the farmhouse then use new/reclaimed slate to repair the remaining north elevation and internal courtyard.

In my opinion, the roof is so badly in need of urgent major repair, if the roof is not repaired immediately, further damage is inevitable and the next storm has the potential to cause further significant damage to it. Not only will this compromise the integrity of the roof, it has the potential to cause significant damage to the interior of the building.

Andrew Hadwin