



SNOWWATER

CHARTERED SURVEYORS

masters of all we survey

SPECIFIC INSPECTION REPORT
upon property situate and known as:-

The Pool House
High Street
Acton
Sudbury
Suffolk
CO10 0AJ

1. INSTRUCTIONS

Following your instruction and receipt of signed Terms and Conditions of Engagement, we are pleased to report as follows:

We have undertaken a specific inspection of the following areas:-

- i. Rear sole plate of the living room.

Whilst on site you also requested that we comment on two *Additional Items*. These include:-

- ii. Ceiling adjacent to the front door.
- iii. Floor within the landing.

We have not undertaken a comprehensive Level 3 building survey of the property and, as such, our examination is limited to the areas detailed above.

2. CIRCUMSTANCES OF THE INSPECTION

The survey was undertaken on Thursday, 8th July 2021 by Matthew Simper. Mr Simper is a Member of the Royal Institution of Chartered Surveyors (RICS) and holds a master's degree in Building Surveying.

The weather at the time of the inspection was overcast and damp under foot. This followed a period of wet weather during the preceding evening.

Mr Simper was met at the property by the owner, who remained present for the duration of the inspection.

3. LIMITATIONS

The property was fully furnished, though the area under consideration was largely visible internally, but slightly concealed behind elevated ground levels and rendered coverings outside.

4. SITUATION AND DESCRIPTION

The Pool House is a detached two storey cottage, likely to date from the 17th Century. We suspect that it was originally constructed as a series of cottages, which have been amalgamated into one house historically and, over more recent years, extended.

It is understood to be Grade II listed, and also positioned within the village conservation area.

It is traditionally constructed, with a Norfolk reed roof supported on timber framed walls, and with a combination of suspended wood and solid floors.

Concerns have been raised in respect of the rear sole plate. By way of a brief constructional explanation, the sole plate is the substantial horizontal beam which forms the base of the load bearing timber frame. It is positioned on top of a brick plinth, and provides a means of connection to the vertical studs, diagonal braces, and storey posts.

5. EXAMINATION AND OBSERVATIONS

Our examination consisted predominantly of a visual inspection of the base of the wall, gentle probing with a screwdriver, instrumental damp tests, and the formation of one or two holes within the gravel set externally to the base of the wall.

The sole plate, exposed both inside and outside, has been subject to damp related deterioration, which has caused some localised softening to the underside and also more pronounced decay in three areas, (i) to the left of the window, (ii) beneath the window, and (iii) between the window and door. Here, a screwdriver can be driven into the centre of the beam, indicating significant decay.



Rot to sole plate



Rot to plate internally



Damp staining

The brick plinth appears to have been covered both inside and outside by render/plaster. This has been removed. The brickwork outside has some small areas of vegetation sprouting from the surface and loose areas of mortar.

Inside, the brick plinth shows visual signs of dampness, crumbling mortar, discolouration, etc. There are also damp stains to the plaster panels between the studs. The plinth and panels when tested returned elevated damp readings.

6. DISCUSSION AND RECOMMENDATIONS

Although the sole plate has deteriorated, there are no signs of significant instability, which would often manifest in pronounced bowing and tension cracks. Where rot has become established, some slight deviation in the profile of the wall was noted. This is not considered to be excessive.

Cracking that can be seen outside to the render is typical of shrinkage, being the expansion and contraction of building materials at different rates. Close examination of these cracks indicates that they have been raked and filled on successive occasions, and it is highly likely that they will reappear in the future.

The deterioration to the soleplate been caused by; i) a lack of effective damp proof course and ii) elevated ground levels and ineffective drainage. There are a number of improvements which we would recommend and some repairs that you can consider.

Damp Proofing

A damp proof course (DPC) is an impervious barrier which is built into the base of the wall. Its purpose is to prevent moisture from the ground rising up through the brickwork and causing deterioration internally. When this occurs, it is known as rising damp decay.

The building would not have been constructed with a DPC, and it is therefore vulnerable to damp related deterioration. Unfortunately, prolonged damp conditions will have a negative effect on the timber frame, as is the case here. There are various modern chemical treatments and tanking (waterproofing) improvements that can be carried out, though these are not recommended for a listed building and will certainly be resisted by the local authority Conservation Officer.

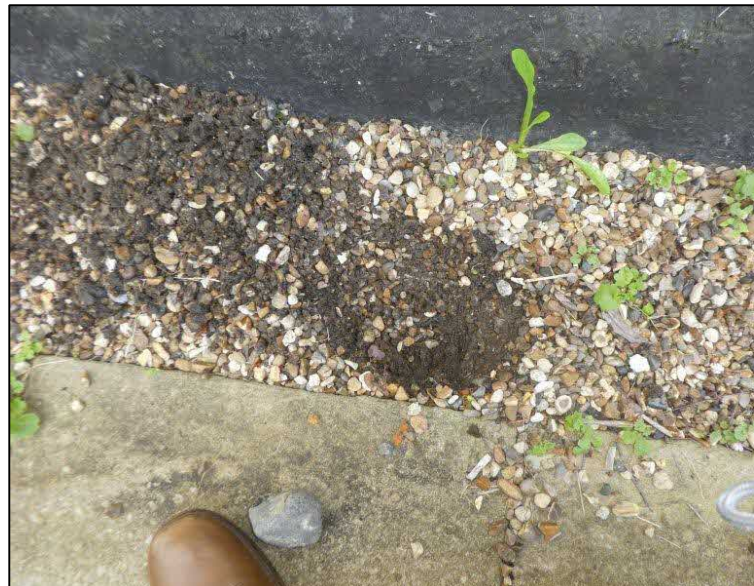
We would therefore recommend a traditional approach, and suggest that the breathability of the wall be improved upon. The principle is that moisture in the wall is allowed to evaporate.

Externally, the bitumen painted cement render that covers the brick plinth should be removed. This is an unhelpful covering, which is trapping moisture. Once exposed the bricks should be repointed in a lime based mortar – *cement must be avoided*. The same repointing to the plinth should be carried out internally.

It is unfortunate that the render covering the main studs is of cement type. Though it is the wrong specification it is in good general order which is important in so far as weather protection is concerned. The surface outside has a slight green tinge in certain areas – this is purely cosmetic and can be wiped away. Given the orientation of the wall (north) you will find that similar discolouration will develop in the future. The point here is that the surface will remain damper for longer as it receives less direct sunlight.



Approximate external ground level shown



Shingle full with dirt

Ground Levels and Drainage

The external ground level is high in respect of the interior. This can be determined by the fact that one steps down into the building and is also evident when basic measurements are taken around the window inside and outside. At this point, the internal ground level is 18cm lower than the exterior. The main issue here is that dampness is able to pass sideways through the bottom of the wall.

In an attempt to reduce moisture ingress through the plinth, a gravel drain has been set to the base of the wall. This is a form of French drain, a damp management technique whereby water is allowed to drain into the ground, as opposed to stagnating at the bottom of the wall, where it is more likely to pass inside. Our examination found that the shingle is not draining, largely due to a build-up of vegetation and also mud.

We would recommend that the shingle be removed, the ground level be reduced and fresh shingle installed. This detail is most effective when combined with a land drain – this is a

perforated pipe set to a fall, and which allows rainwater to drain away from the property. This would be a sensible addition and, as discussed at the time of the inspection, it may be possible to route this into the adjacent well.

Note: there is an electrical cable beneath the shingle this should be isolated before works are carried out. The cable appears to be an modern grey wire, suitable for internal use and not external use. If it is to be retained then it must be upgraded for safety reasons.

Ground reduction must not be carried out to such an extent that it risks undermining the shallow footings of the wall. It is therefore critical that the depth of the plinth be ascertained before these improvements are carried out. It is very important to ensure that these works are undertaken by persons familiar with period buildings.

The patio tiles forming the pathway leading to the back door are set at an angle orientated away from the building and towards the garden. This is an important feature as it will allow rainwater dripping from the roof to role away from the building.

Sole Plate Repairs

Although replacement of the sole plate is not necessary presently, this will be required at some stage in the future. When these works are carried out, it is best that long lengths of the beam are replaced in one go. Over an 8 metre stretch, this should ideally be carried out in 4 meter or 2 meter intervals.

The rotted areas can be patch repaired, though our suspicion is that the cost of undertaking piecemeal improvements may be high and, to that end, total replacement may be more economical, albeit not entirely necessary presently. Quotations should be sought for both (patch repair or replacement) and a decision taken as to the most cost effective solution.

Another consideration is that replacement of the sole plate is likely to require listed buildings consent, whereas general maintenance will not. When the soleplate is eventually replaced a physical DPC can be inserted and this will help to reduce the same deterioration from occurring in the future.

7. CONCLUSION

Our above recommendations will help to manage dampness, though it will not prevent it. By way of a summary, though deterioration has occurred to the sole plate, it retains sufficient strength to support the structure above presently. Although replacement will be required in the years to come, this is not deemed urgent immediately.

8. ADDITIONAL ITEMS

Living Room Ceiling

The lath and plaster ceiling adjacent to the front door is loose and bowing. The plaster here has lost bond from the wooden laths and the surface should be dropped and repaired on a like-for-like basis.

This is a very common fault and would be deemed to be minor. It is likely that the plaster became loose due to vibration from both the floor above and the adjacent door.

There was staining to the plaster surface which was found to be dry. It is possibility that the radiators above have leaked or that some seepage from the exterior had occurred. There was no evidence of an ongoing fault to the radiators and no clear entry point for rainwater. If there is an ongoing leak here it will become apparent in the future and can be attended to as necessary.

First Floor Landing

There is a slight spring to the surface of floor – this was noted at the top of the landing and at the junction between the original building and extension.

The cause is likely to be the undersizing of the floor joist and also slight movement which has taken place over the centuries to the frame beneath. Some improvement works have been carried out to the floor, with the support to the ends of the joists strengthened.

A certain amount of deviation and ‘spring’ is to be anticipated in a period building, and we would suggest that the fault here is modest and within acceptable tolerances for an ancient dwelling. No improvements are required.

Signed .



Matthew Simper MRICS

Date: 13th July 2021