



The Swan, Three Mile Cross

Job No: 22102

Date: 15/07/2024

Client: Fraser's Retail



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Hockley and Dawson Consulting Engineers

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1.0 Introduction and Brief

The property was inspected on Thursday 11th July 2024.

The weather at the time of inspection was hot, dry and sunny. This was preceded by a period of generally intermittent wet and dry weather.

We have carried out our report and inspection of the structural conditions of property and to comment on the proposed structural requirements for the new works and alterations and their effect on the architectural or historic integrity of the building for Listed Building Consent.

The report should be construed as a comment on the overall condition of the property, and the quality of its structure at the time of the survey.

All directions given in the report assume that the reader is outside looking towards the front door, which faces approximately west.

2.0 Description

The Swan Inn Public House was originally a cottage built in the early 16th century and altered in the 18th and 19th centuries. The construction is Part timber-framed with painted brick infill, part painted brick and an old tile gabled roof. The main structure is rectangular in plan with 4 framed bays and a 19th-century extension right angle to the main block. The main building is 2 storeys high with a square chimney to the north of centre on the ridge and one to the south. The front elevation has 3 bays of 3-light casement windows, those on the ground floor have segmental heads, with entrance doors between the outer and centre bay. The entrance door gabled wooden porch is 19th century

The interior has the timber frames visible on the first floor with queen post and queen strut trusses one of which has been previously altered with steel struts and ties to allow for a larger room area. The rear of the property where the new alteration and construction works are proposed has a rear extension of modern construction and comprises a toilet block and kitchen area. The separating wall between the original 16th-century building and the modern rear extension is constructed using modern masonry and has replaced the original part timber- frame and brick fill that you would expect in this area. This is most likely due to the number of openings in the rear wall impacting the structural viability of the original timber frame in that area. It was also noted that along with the rear wall, the corridor wall parallel to it was also built using modern construction techniques and was most likely built at the same time as the rear extension.

3.0 Observations

3.1 Chimney stacks

Both stacks are surmounted by two chimney pots. The stacks are sealed to the adjacent tile coverings with render. Both stacks have previously been repointed with sand and cement mortar. The chimneys are reasonably straight and true with no signs of significant bulging or cracking. The brickwork is in good condition with no real signs of spalled brickwork.



3.2 Main Roof

The main roof is of pitched gable construction with the main ridge spanning from left to right. The main roof is covered with plain clay tiles and finished with rounded clay ridge bedded in mortar. The roof tiles comprise a mixture of handmade clay tiles with varying cambers.

The main roof slopes over the property were noted to be reasonably even and free from any undue distortion, deflection or distress, although it is possible to see the positions of the queen trusses within the line of the roof as the areas in between have sagged slightly throughout the years. This suggests that the roof framework is dealing adequately with the imposed load of the roof covering. The roof tiling is in excellent order considering its age, with no slipped, missing or broken tiles, which need replacement. In view of the age of the roof, ongoing replacements must be expected which shows how well-maintained the main roof has been.

3.3 Secondary Roofs

There are several secondary roofs to the property including a flat felt roof over the rear extensions and a duo-pitched roof over the front porch canopy and the 19th century extension. We were unable to view the flat roof properly however from the edges that we saw it looked quite new and in good condition. The tiled pitched roof to the porch is in excellent condition and the 17th-century extension roof has a few slipped, missing and broken tiles, which will need replacement.



3.4 Flashings and gutters

The lead flashing to the building is in a good state of repair and no serious defects were noted from ground level. Rainwater is collected from the base of the main roof slopes by black cast iron half-round gutters which are secured to the walls with metal brackets. Rainwater outfall is then discharged via a mixture of plastic and older cast iron hoppers and downpipes which in turn discharge below ground level into either soakaway chambers or into the drainage systems. No serious defects were noted from ground level.

3.5 External walls

The external walls of the original cottage are of solid brick construction approximately 250mm in thickness whilst the walls to the rear extension are of cavity brick construction.

No inspection of the foundations could be made so we are unable to report on their form or the condition of the soil beneath them. Foundations are likely to be limited by today's standards. If we excavated around the foundations, we would expect to see a stepped brick foundation or possibly a stone-filled trench.

Most buildings suffer some degree of settlement, i.e. downward movement after they are built, due to compaction of the ground under the weight of the building. Normally, such movements are relatively minor and will occur early in the life of the building so that a house of this age would, by now, have reached essentially a stable state.

There is no evidence internally or externally of any ongoing or progressive movement to the property. We inspected all internal walls, floors, and door frames with a level and by eye to establish whether there was any evidence of movement to the main structure of the building, and none was found. We would normally expect the current apparent state of stability to continue unless it is disturbed by such things as leaking drains or water service pipes.

There is a small vertical crack in the gable wall of the property below the roof rafters. The crack is likely to be due to roof spread and it is noted that the vertical perp joints in this area are larger than other joints and they most likely have been continually repointed. There is also a metal strap used in this area to tie back the roof rafter to the rest of the timber frame. Although considered a structural issue it is not overly significant and can be mitigated with ongoing repointing. It is also noted that all unpainted brickwork has previously been repointed by sand cement mortar. With solid brick walls, it is important to use a lime mortar. A lime mortar is more flexible than a hard-based sand cement mix and allows the walls to "breathe". Unfortunately, a cement-based mortar has been used. Cement mortars cause the bricks to spall where moisture is forced out through the brick rather than the pointing. Removal of the hard cement mortar would be difficult without damaging the brickwork.



3.6 Other walls

The boundary wall along the east side of the property has a significant lean towards the neighbouring property. The lean is outside the middle third of the wall line and is therefore unstable. The wall is past the stage of being able to be supported with additional buttressing and will continue to lean until it eventually collapses.



3.7 External decorations, joinery/ windows

The property is in a very good state of repair and there were no signs of timber decay or flaking paintwork.

3.8 Internal walls and ceilings

The internal walls are part timber frame and infill brickwork. The timber frames and brick are exposed and are in a good state of repair and appear structurally satisfactory with no significant evidence of internal structural movement. The original ceilings would have been of lath and plaster (the traditional method of ceiling construction with plaster applied to narrow strips of timber) and it is unlikely that they have been replaced or over boarded with plasterboard. There are some timber partition walls at the 1st floor level which are also lath and plastered. The four number Queen trusses, three of which have infill brickwork, are in good state of repair with no signs of decay. One of the trusses has previously been structurally altered to increase the size of one of the rooms. The alterations seem to not have had any determinantal effect to the overall structural condition of the building.





3.9 Floors

The ground floors throughout are believed to be of solid concrete construction with a variety of floor finishes. The original ground floors of the cottage would most likely have comprised compacted earth with quarry tile or cobbled finish. These appear to have been replaced with concrete floors (although without lifting the floor coverings we cannot be completely sure about this).

The first floors are of timber construction with tiling to the bathroom and carpets to the bedrooms. The floors in each room slope slightly towards the external walls which is not uncommon in properties of this age.

4.0 Conclusions and Recommendations

The property is in a very good state of repair and has been well-maintained.

We don't believe that the new alterations and additions will impact the fabric of the original 16th-century main building as the works are in areas of modern construction. We would recommend that the boundary wall be demolished and then rebuilt. We would also recommend that the gable masonry should be stitch repaired with helifix ties to mitigate any further roof spread.

5.0 Standard Conditions

This report is the property of and is confidential to the client designated in the report. Whilst it may be shown to the client's professional advisors, the contents are not to be disclosed to, or made use of, by any third party, without our express written consent. Without such consent, we can accept no responsibility to any third party.

Whilst every effort will be made to fully inspect those parts of the building requested of us to inspect, no permanent or secured fixtures and fittings will have been removed. We will not have inspected woodwork or other parts of the structure which were covered, unexposed or inaccessible and we are unable to report that any such part of the property is free from defect.

Hockley and Dawson certify that they have carried out the works contained herein with due care and diligence to their best belief and knowledge based on the time and information available.

This report is made on behalf of Hockley and Dawson. By receiving it and acting on it, the client – or any third party relying on it – accepts that no individual is personally liable in contract, tort or breach of statutory duty (including negligence).