# **BUILDING SURVEY**

PRIVATE & CONFIDENTIAL REF: \*\*\*\*\*\*\* 315/\*\*

BUILDING SURVEY FOR \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

FOR \*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\*, Birmingham,

\*\*\*\*\*\*



Date of Survey: \*\*\*\*\*\*\*

Weather: Dry/overcast. 17°C.



### **SURVEY CONTENTS**

- 1.00 THE PROPERTY
- 1.09 GENERAL ENVIRONMENTAL ISSUES IN THE LOCALITY
- 1.10 THE INSPECTION
- 2.00 PURPOSE OF THE REPORT AND RECOMMENDATIONS
- 3.00 ROOF COVERINGS AND FLASHINGS
- 4.00 ROOF SPACES
- 5.00 CHIMNEYSTACKS
- 6.00 PARAPET WALLS, RETAINING WALLS & BOUNDARY WALLS
- 7.00 FASCIAS AND SOFFITS
- 8.00 RAINWATER GOODS
- 9.00 EXTERNAL SOIL WASTE AND VENTILATION PIPEWORK
- 10.00 EXTERNAL WALLS
- 11.00 DAMP PROOF COURSE
- **12.00 WINDOWS**
- 13.00 EXTERNAL DOORS
- 14.00 EXTERNAL DECORATIONS
- 15.00 INTERNAL WALLS, PARTITIONS & CEILINGS
- 16.00 FIREPLACES, FLUES AND CHIMNEY BREASTS
- **17.00 FLOORS**
- 18.00 CELLAR
- 19.00 DAMPNESS
- 20.00 WOODBORING BEETLE AND ROT
- 21.00 INTERNAL FINISHES
- 22.00 INTERNAL JOINERY
- 23.00 SANITARY WARE
- 24.00 SERVICES
- 24.01 General
- 24.02 Internal Wastes
- 24.03 Plumbing Installation
- 24.04 Heating Installation
- 24.05 Gas Installation
- 24.06 Electrical Installation
- 24.07 Drainage Installation
- 25.00 ASBESTOS
- 26.00 FIRE PROTECTION AND MEANS OF ESCAPE
- 27.00 NOISE SEPARATION
- 28.00 EXTERNAL BUILDINGS AND CONSERVATORIES AND LANDSCAPING
- 29.00 LEGAL MATTERS
- 30.00 SUMMARY
- 31.00 SURVEYS OVERALL OPINION
- 32.00 GLOSSARY
- 33.00 GENERAL INFORMATION.



#### 1.00 THE PROPERTY

1.01 Tenure: This should be verified by your solicitor.

### 1.02 Description

No \*\*\*\*\*\*\* Road is an extended detached house. The property has traditional brickwork walls with a clay plain tile roof. No. 96 faces northwest.

#### 1.03 Accommodation:

Ground Floor (front): Porch, hall leading to stairs, front and rear reception room, kitchen/breakfast, family room, utility, and store.

First Floor: Landing, five bedrooms with one with ensuite, family bathroom.

Second Floor: None.

### 1.04 Energy efficiency:

The Energy Performance Certificate for this property is dated 2013 and predate the extension works. This mean that the certificate lists the property as rating E which is lower than we would expect. We cannot confirm the implications of this out-of-date certificate. You should discuss this with your solicitor and the energy assessor.

### 1.05 Outbuildings and Parking:

The parking is to the front of the property on the private driveway.

### 1.06 Approximate Age:

The property appears on the 1937 map.

Your solicitor can verify the actual date of construction from the deeds.

### 1.07 Orientation:

The front of the property faces approximately northwest.



1.08 GENERAL ENVIRONMENTAL ISSUES IN THE LOCALITY.

The following are brief findings from an initial desk top study available from sources on the internet.

They are used by us when preparing the report and are included here for your information only.

They <u>should not</u> be used in place of an independent Environmental Report provided by a specialist company. Your solicitor can advise you accordingly and will usually arrange this specialist report on your behalf (see clause 27 of T&Cs B223c).

### • Location and Amenities:

The property resides in a residential area containing properties of similar ages and styles. Amenities at Boldmere are a short car drive away.

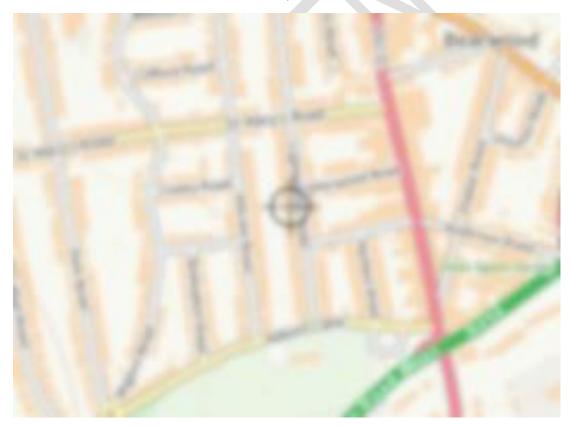
### • Roads and Footpaths:

Your solicitor should check to ensure that roads and footpaths are fully adopted. We saw no indication to lead us to believe that they are not.

• Flooding (Rivers, sea, surface water and reservoirs).

https://flood-warning-information.service.gov.uk/long-term-flood-risk/

Rivers, sea, surface water and reservoirs - Very low risk



Please be aware that the findings can be different on - <a href="https://flood-map-for-planning.service.gov.uk/">https://flood-map-for-planning.service.gov.uk/</a>



1.08 GENERAL ENVIRONMENTAL ISSUES IN THE LOCALITY.

• <u>Radon</u> - <u>https://www.ukradon.org/</u>.

All parts of this 1km grid square are in the lowest band of radon potential. Less than 1 % of homes above the Action Level.

Every building has radon and in most areas the levels are low. Some buildings in "radon Affected Areas" have higher levels. Buildings in these areas should be tested for radon. High levels can be reduced by simple building works. There are three simple steps you can follow:

- Check is your property in a radon Affected Area? <a href="https://www.ukradon.org/information/ukmaps">https://www.ukradon.org/information/ukmaps</a>
- 2. Measure If you are in a radon Affected Area you should order a radon measurement pack for your home or workplace.
- 3. Act If the radon level is high, you should reduce it using simple building works.
- Noise from transportation networks We noted regular low flying commercial aircraft from Birmingham Airport.
- <u>Typical geological and soil conditions</u> generally Sandstone/sand and gravel.

Please be aware, that this may not represent "at surface" conditions which could be a different material such as clay. Where this occurs, even if the geological conditions state a free draining material such as sand and gravel, surface clay could cause drainage issues to garden areas etc.

https://mapapps.bgs.ac.uk/geologyofbritain/home.html





#### 1.08 GENERAL ENVIRONMENTAL ISSUES IN THE LOCALITY.

- Well-known but unique local and regional ground conditions none known.
- Landfill sites and relevant former industrial activities none known.
- <u>Former mining activities</u> The property is outside of the Coal Mining Reporting area. https://mapapps2.bgs.ac.uk/coalauthority/home.html
- <u>Future/proposed infrastructure schemes and proposals</u> your solicitor should advise you accordingly.
- Planning areas (e.g., conservation areas, areas of outstanding natural beauty and Article 4 <u>direction</u>) None that we are aware of, but your solicitor should advise you accordingly.
- <u>Listed building status</u>. None that we are aware of, but your solicitor should advise you accordingly.
- Other general information None that we are aware of.



### 1.00 THE INSPECTION

- 1.01 All directions are given as if facing the property from the front door.
- 1.02 Externally the property was inspected from ground level to the front and rear. No long ladders were used.
- 1.03 The property was fully furnished and occupied at the time of our inspection.
- 1.04 We have not moved heavy or fixed furniture including kitchen units or sanitaryware. We, therefore, cannot confirm that any element covered in these items is free of defects.
- 1.05 All structural elements of floors were covered in boards and finishes. Therefore, we could not inspect the structural elements of the floors and cannot confirm that they are free of defects.
- 1.06 We have not excavated trial holes or opened-up any portion of the property by removing plaster, boarding, lining, brickwork, panelling, or bath panels. We have not inspected woodwork or other parts of the structure that were covered, unexposed or inaccessible.
- 1.07 There were some unfixed boards to the original loft, but these were all covered in vendor's storage. To the extension, there were some loose boards, but these were away from safe access. Our inspection of both areas was therefore carried out as a visible inspection from the main hatch only. This does not constitute a thorough inspection of the roof spaces and there may be defects and issues that were not apparent of the day of our survey.
- 1.08 We have not tested services nor commented upon defects. The testing of the electric, gas and heating installations is recommended prior to you purchasing the property. These are carried out by specialists, and you should arrange for these at your earliest convenience.
- 1.09 Although our report makes comment upon general environmental issues, we have not carried out a specific flood risk, environmental, geological, mining, Radon or ground contamination survey and cannot confirm environmental, ground, near surface or underground conditions. Our findings are based upon a brief "desktop" study and should not be used as the basis for deciding whether or not to purchase the property. You should always arrange for a specialist Environmental Report to be carried out on the property. This can be arranged through your solicitor.
- 1.10 The survey does not comment on the position of boundaries. You should consult your solicitor to ascertain the correct location of fences/structures at, near or on the boundaries.
- 1.11 Our report is mainly concerned with matters that significantly affect the condition of the building. We have not prepared a schedule listing defects room by room or specifically mentioned every minor blemish or listed every element of each component. We have written our report in general terms.
- 1.12 This report is private and confidential and is prepared for your own use. It may be shown to other professional advisers acting on your behalf in connection with the purchase of the property. Its contents may not be disclosed to, nor made use of by, any other third party without our express consent in writing.



### 2.00 PURPOSE OF THE REPORT AND RECOMMENDATIONS

- 2.01 The purpose of the inspection and the verbal and written reports is to put the present condition of the property into an overall perspective. It is not a guarantee or an insurance policy that defects will not occur in the future.
- 2.02 This report follows our survey inspection of the property.
- 2.03 The purpose of the report is to provide you with the information which will enable you to make an informed decision about the property prior to proceeding with the purchase.
- 2.04 The report will give a brief description of each element and where necessary, it will make further recommendations to investigate the defect further.
- 2.05 Each element will be graded as follows:

<u>CONDITION RATING 1</u> – The element's condition is commensurate with its age, and it is in a good or acceptable condition; however, as with all building materials, maintenance will still be required in the future.

<u>CONDITION RATING 2</u> — The element's condition requires attention from a specialist to provide a quotation as we deem that the element requires maintenance or replacement. This inspection/quotation should be carried out prior to purchasing the property so that you are aware of the costs and time involved. The findings may affect the value of the property but can usually be carried out once you occupy the property.

<u>CONDITION RATING 3</u> – The elements condition is serious enough that it could have a detrimental effect on your enjoyment of the property, and we deem that the issue needs immediate attention from a specialist. You should not proceed without further investigation.

<u>NOT INSPECTED</u> – We were unable to gain access to the element. We cannot confirm that the elements is present. If the element is present, we cannot confirm that it is positioned correctly, functioning correctly, nor free of issues or defects.



### Notes relevant to this property:

The original property has been altered and extended to the side.

Birmingham City Council planning portal indicates that the amended drawings were approved in 2016 and we believe, the extension was completed in 2017.

The planning drawings are readily available on the planning portal. These drawings do not include any construction/design detail and we are not aware of the existence of construction detailed drawings, "as-built" drawings, schedules, or specifications.

Please note that our inspection and report have been carried out and prepared as a standard pre-purchase building survey and the planning drawings have not been referred to during the inspection. To confirm, this report is not a Professional Consultant's Certificate, and this report is not verification of accuracy of the construction to the approved drawings.

The vendor indicated that an architect was not involved during the alteration and extension of the property. This means that there was no construction/design professional involved in ensuring that work was carried out to the design and the levels of workmanship and materials expected. The vendor did indicate that building regulations compliance was carried out by Acivico (Birmingham City Council), but you should be aware that inspections can be few and far between and you should not assume that that a building control officer will ensure overall standards apart from building regulations.

Similarly, the vendor indicated that a Structural Engineer was not involved in designing or overseeing the roof structure. We cannot comment upon the design of the roof structure, but we have identified issues with the workmanship and the lack of professional input is a concern.

Your solicitor should enquire to see if the designing architect carried out any form of post-construction inspection and whether or not it is possible to get a Professional Consultant's Certificate (Architect's Certificate) issued by the designing architect. If not, you should be aware that issues may arise in the future which were not apparent on the day of the inspection and these issues, will be left to you to rectify and pay for.

It may be possible to obtain latent defects insurance. This can be discussed with your solicitor.

Your solicitor should also ensure that the planning department have issued a planning completion certificate with all conditions discharged and that there is a Building Regulation Completion Certificate.



### 3.00 ROOF COVERINGS AND FLASHINGS

### Main roof finish including upper and lower extension roof finish.

- 3.01 The main roof is covered in clay plain tiles.
- 3.02 The original and extended elements of the roof are lined with modern geotextile membrane. This modern underlay means that the original tiles have been lifted and relayed and additional, reclaimed tiles imported from another property. Unfortunately, this means that the tiles to this property are up to eighty years old. This is the upper limit for clay tiles and means that deterioration of the tiles on this house will be an ongoing problem.
- 3.03 The hips, ridge and valleys are set in mortar. Since 2015, it has become the industry standard to set these elements in a ventilated, dry-fix systems which removes the risk of mortar failure and the subsequent risk of dislodged tiles and the requirement to access the roof for maintenance. It is disappointing that this property's roof does not comply with this British Standard (BS5534) and may indicate that an architect was not involved in designing and specifying the modernisation/extension of the property.
- 3.04 On the day of the inspection, we saw no evidence that the mortar to these elements had failed, but please be aware that we would expect good quality, correctly installed mortar to require renewal ten to fifteen years following installation. We cannot confirm the quality of the mortar but recommend that when the tiles require repointing, they are lifted and fitted in a ventilated, dry-fix system (see comments in section 4.00).
- 3.05 On the day of the inspection, we noted:
  - 1. One cut valley tile looks like it has slipped to the front valley.
  - 2. We could not see mortar to the valleys. Traditionally, mortar is used to the edge of the lead lined valleys to weather-proof them although other means to can be used to stop rainwater getting into the valley edges. The valleys should be inspected.
  - 3. One tile is missing to the front of the extension.
  - 4. Three broken tiles and one slipped tile to the right-hand side of the lower and second-storey extension.
  - 5. To the rear eaves, the tiles look uneven, and this can be caused by the lower of the double-laid tiles deteriorating.
  - 6. The lead flashing has been missed to the front return above the porch. This needs to be installed.



### 3.00 ROOF COVERINGS AND FLASHINGS

Main roof finish including upper and lower extension roof finish.

3.06 We recommend that the roof is inspected by a roofing contractor, and they replace all of the missing or broken tiles and the missing lead flashing. They should also check the condition of the mortar to hips, ridges, and valleys. They can also give you a quotation to lift and refix all ridge and hip tiles in a ventilated dry-fix system. They should also allow for a ventilated eaves system:

https://www.marley.co.uk/products/accessories/ridgefast

https://www.marley.co.uk/products/accessories/hipfast

https://www.marley.co.uk/accessories/25mm-eaves-vent-system

As part of the above installation, the roofing contractor should allow to split the membrane beneath the ridge and hips, otherwise an air flow will not get into the roof space.

3.07 The roof structure at the front dormer extends a reasonable way over the front bays and in the past, we have witnessed where these large dormers settle and sink. The ridge line to this dormer did look like it sloped slightly, but the window casements to the bedroom bay opened and closed easily. The dormer is being supported upon the UPVC bay window and this bay may not be as supportive as the original timber bay window. We recommend the introduction of gallows brackets both sides of the bay window to support the roof. The roofing contractor can quote for these brackets.

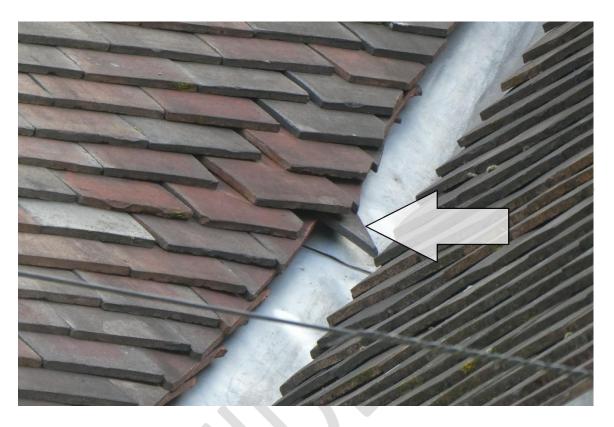
3.08 We saw nothing else of note.

**Condition Rating 2** 



### 3.00 ROOF COVERINGS AND FLASHINGS

SLIPPED CUT VALLEY TILE. NOTE THAT YOU CANNOT SEE MORTAR TO THE EDGE OF THE VALLEYS.



BROKEN AND SLIPPED TILES.





### 3.00 ROOF COVERINGS AND FLASHINGS

BROKEN TILE.



UNEVEN EAVES NEEDS TO BE CHECKED.





# 3.00 ROOF COVERINGS AND FLASHINGS

LEAD FLASHING IS MISSING.





### 3.00 ROOF COVERINGS AND FLASHINGS

### Rear reception roof finish.

- 3.09 This small roof is covered in original clay plain tiles. The tiles look older than those used to the other roofs and there are broken tiles.
- 3.10 We lifted tiles and the roof is unlined without any membrane. This means that the roof is at risk of penetration from wind driven rain and snow.
- 3.11 The roof finish should be replaced with new membrane, battens, and tiles to BS5534. The flashing to the house wall should also be replaced with lead roll.
- 3.12 The roof is without a gutter and downpipe. These should be fitted.

# **Condition Rating 2**

### THIS ROOF REQUIRES RENEWAL.





# 3.00 ROOF COVERINGS AND FLASHINGS

LOOKING UNDER THE TILES. THE ROOF IS UNLINED.





### 3.00 ROOF COVERINGS AND FLASHINGS

### Kitchen bay roof.

- 3.13 This roof is not shown on the planning drawing. You should discuss this addition with your solicitor.
- 3.14 This roof is covered in reclaimed clay plain tiles. The roof is lined with geotextile membrane. The battens are not to BS5534 and may be untreated.
- 3.15 The flashing to the main house wall is not wide enough and has been pointed to a low standard.
- 3.16 The flashing should be replaced with lead roll which covers the whole of the joint. It needs to be repointed correctly with silicone sealant.
- 3.17 The roof finish is without supplementary ventilation measures. It would be prudent to install eaves ventilators and ventilator tiles towards the flashing.
- 3.18 We cannot confirm the standard of the hidden roof structure (take note of our comments regarding the main roof structure in section 4.00).

**Condition Rating 2** 

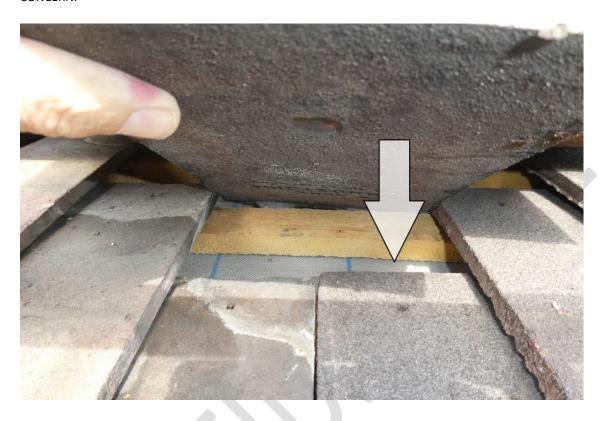
THIS ROOF IS NOT ON THE PLANNING DRAWINGS.





### 3.00 ROOF COVERINGS AND FLASHINGS

MEMBRANE CAN BE SEEN UNDER THE BATTEN. THE BATTEN LOOKS LIKE UNTREATED TIMBER WHICH IS A CONCERN.



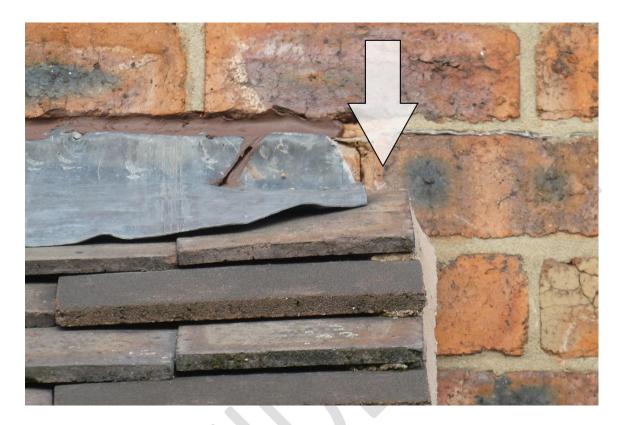
BRICK SILICONE USED TO REPOINT THE FLASHING. IT IS UNTIDY.





# 3.00 ROOF COVERINGS AND FLASHINGS

FLASHING IS TOO SHORT.





### 3.00 ROOF COVERINGS AND FLASHINGS

### Front small bedroom bay roof.

3.19 This roof is too high to inspect but appears to be covered in original zinc or lead.

3.20 There were no signs of leakage within the bedroom, but the material is now very old, and you should budget for renewal or covering in EPDM. Again, a quotation should be obtained.

# **Condition Rating 2**





### 4.00 ROOF SPACES

4.01 There were some unfixed boards to the original loft, but these were all covered in vendor's storage. To the extension, there were some loose boards laid, but these were away from safe access. Our inspection of both areas was therefore carried out as a visible inspection from the hatch only. This does not constitute a thorough inspection of the roof spaces and there may be defects and issues that were not apparent of the day of our survey.

4.02 There is a geotextile membrane to the underside of both roofs. The battens are above this membrane, so we could not see the battens. To the kitchen bay roof, we could see what looked like untreated battens. This is a concern, because if the battens used throughout are untreated, they will be subject to the dampness leaching through old tiles and will eventually rot/deteriorate. We cannot comment further.

4.03 This type of underlay should allow moisture vapour to escape, however, in the past, we have witnessed condensation on the underside of this material. We believe that this is due to the membrane becoming clogged with dust and thus developing into an impermeable barrier to moisture vapour (hence the reason why BS5534 stipulates ventilated elements to eaves, ridge and hips). We did not see any condensation in this roof, and we tested timbers with a moisture probe meter and the readings were below the threshold of 20% for woodworm and rots. If condensation does become an issue following insulating the roof and especially in the colder months, then the ventilated, dry-fix system mentioned in section 3.00 will need to be installed. We have advised you to obtain a quotation.

4.04 The roof structure to both sections is a "carpenter's cut-roof" with one purlins to each elevation.

4.05 To the original roof structure, the joists appear to run side to side, and we could not determine the status of the rafter/joist connection to the front and rear. This means that two elevations may be unrestrained. As the joists appear to go side to side, it means that the front and rear connections could be without restraint. To support the connection, twist restraint straps ( <a href="https://www.screwfix.com/p/sabrefix-rolled-edge-restraint-strap-twist-5-pack/96232">https://www.screwfix.com/p/sabrefix-rolled-edge-restraint-strap-twist-5-pack/96232</a>) should be installed to every second rafter/joist connection to the three sides of the exposed eaves.



### 4.00 ROOF SPACES

4.06 To the extension roof structure, we noted:

- 1. The timbers look untreated and not protected against insects or rots. Although this complies with building regulations, the cost difference between untreated and treated timbers is small and we prefer to see treated timbers in a modern roof space.
- 2. The floor joists span to the side. We could not see if the rafters were restrained to the joists and if not, this means that there is no triangulation to restrain the front and rear elevation of the extension roof structure. The joist/rafter connection should be checked and if there is no mechanical connection, twist straps should be fitted to every second connection <a href="https://www.screwfix.com/p/sabrefix-rolled-edge-restraint-strap-twist-5-pack/96232">https://www.screwfix.com/p/sabrefix-rolled-edge-restraint-strap-twist-5-pack/96232</a>
- 3. The purlins appear to be simply supported on vertical props without any form of restraint/fitting into the hip timbers and the original side purlin. We also noted that at least one rafter does not meet the purlin and there is a gap. This means that the purlins are effectively held in place by the small number of props and may be providing very little support to the rafters and theoretically, the roof could spread.
- 4. The purlin support props go down to flat boards across the joists. These are only thin boards and may not spread the load as a more substantial ceiling binder will.
- 5. The rear purlin is only just resting on the original side purlin. The front purlin is not even resting upon the other end of the original purlin; it is resting up in the air supported by one small prop and another near the hip timber. The roof structure appears below the standard that we would expect to see, and the vendor confirmed that there was not a Structural Engineer involved in either the design or the construction. It is our opinion that the roof structure has not been formed to the standard that it should have been. We recommend:
  - The three purlins must be checked and connected to the hip timbers. Each should have three C24 100mm x 100mm timber props fixed diagonally beneath them. Each prop should be fitted down to a new ceiling binder to spread the load.
  - The ends of the front and rear purlins need to connect to the original side purlins. The rear purlin will need to be extended by bolting a similar sized extension to the rear purlin. The front purlin may be able to be connected to the original hip or rafter timber. If not, it will need to have another prop fitted at the end and taken down to a ceiling binder.
  - The original side purlin will need new C24 100mm x 100mm vertical props fitted beneath the area where the extension purlins bear upon it. These should be taken down to original side wall or ceiling binder (existing or new) which should be 150mm x 75mm timbers.
  - Each rafter/purlin connection should be checked and where there is a gap, the gap should be wedged with plastic shims.

4.06 We estimate that the above are minimum works. Further works may be requires once the structure is closely checked.



### 4.00 ROOF SPACES

- 4.07 There is little insulation to both floors, and this is unusual to the extension as it should comply with building regulations. Current recommendations are a minimum of 270mm. The complete loft would benefit from the removal of the boards and a uniform 300mm of insulation.
- 4.08 We noted extractor fans discharging into the roof space and the eaves. The extractor ducts must discharge to outside air. These should be fitted to proprietary roof tiles.
- 4.09 Electrical cabling that we could see looked old. The vendor indicated that the original house had been "re-wired" in 2013. This surprised us. Your solicitor should obtain the Building Regulations Compliance Certificate and guarantee. They should make sure that it is the complete installation and not part installation.
- 4.10 Downlighter to the bathroom are not fire-rated. All downlighters should be checked and replaced with fire-rated units to ensure the fire integrity of each ceiling.
- 4.11 The loft hatch should be replaced for a fire rated unit.
- 4.12 We saw nothing else of note.

**Condition Rating 2** 



### 4.00 ROOF SPACES

THE BOARDS TO THE ORIGINAL ROOF SPACE ARE COVERED IN STORAGE.



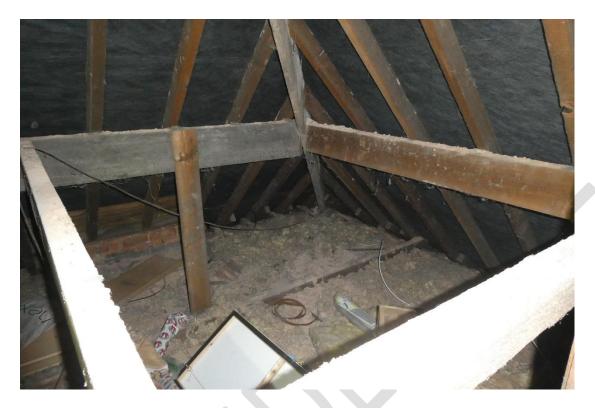
LOOKING TOWARDS THE FRONT LEFT-HAND CORNER OF THE ORIGINAL ROOF SPACE. NOTE BRICK PURLIN SUPPORT WALL.





### 4.00 ROOF SPACES

ORIGINAL REAR LEFT-HAND CORNER. NOTE HOW LITTLE INSULATION IS IN PLACE.



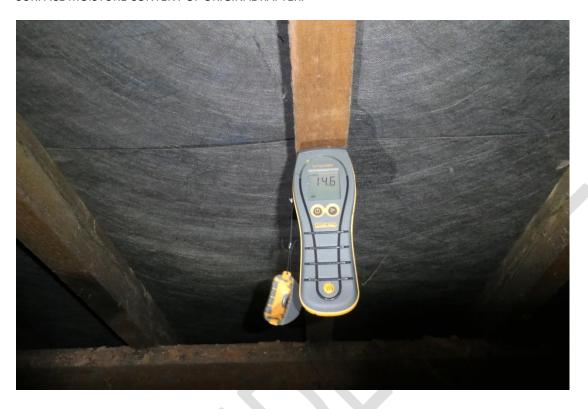
THE FRONT DORMER CAN BE SEEN BUT NOT INSPECTED.





### 4.00 ROOF SPACES

SURFACE MOISTURE CONTENT OF ORIGINAL RAFTER.



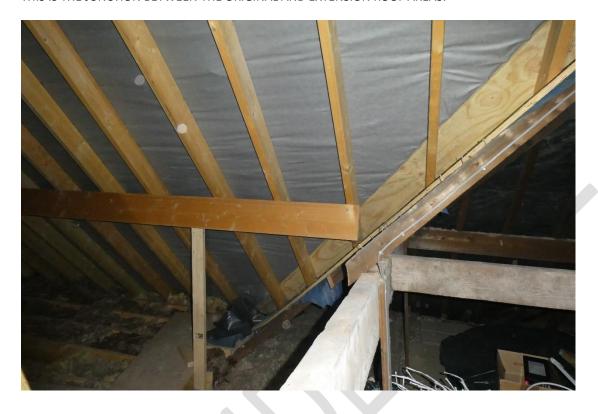
SURFACE MOISTURE CONTENT OF NEW RAFTER.





### 4.00 ROOF SPACES

THIS IS THE JUNCTION BETWEEN THE ORIGINAL AND EXTENSION ROOF AREAS.



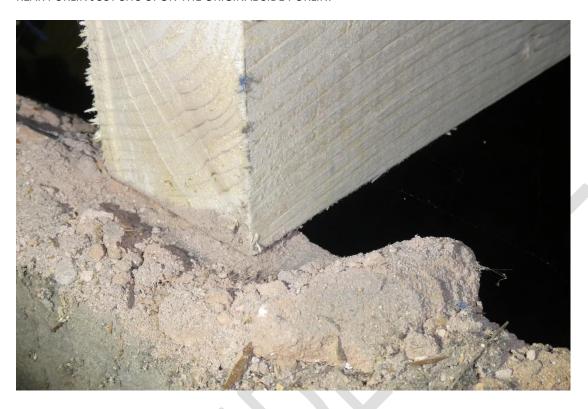
REAR PURLIN JUST SITS UPON THE ORIGINAL SIDE PURLIN.





### 4.00 ROOF SPACES

REAR PURLIN JUST SITS UPON THE ORIGINAL SIDE PURLIN.



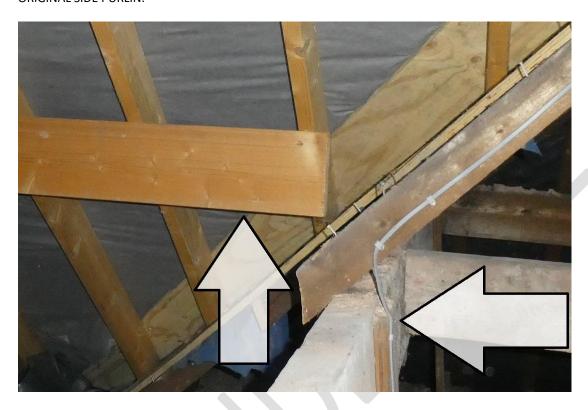
AIR GAP BETWEEN THE REAR PURLIN AND ONE RAFTER.





### 4.00 ROOF SPACES

APART FROM TWO SMALL PROPS THE FRONT PURLIN IS HANGING IN THE AIR. IT SHOULD BE RESTING ON THE ORIGINAL SIDE PURLIN.



LOOKING ACROSS TO THE SIDE OF THE EXTENSION. NOTE HOW LITTLE INSULATION IS ON THE FLOOR. THE VERTICAL PROPS APPEAR TO BE ALL THAT ARE HOLDING THE PURLINS IN PLACE.





### 4.00 ROOF SPACES

LOOKING ALONG THE FRONT PURLIN.



ENSUITE EXTRACTOR FAN DISCHARGING INTO THE EAVES.





### 4.00 ROOF SPACES

BATHROOM EXTRACTOR FAN DISCHARGING INTO THE ROOF SPACE.



NON-FIRE RATED DOWNLIGHTERS ABOVE THE BATHROOM. THE ELECTRIC CABLES LOOK OLD.



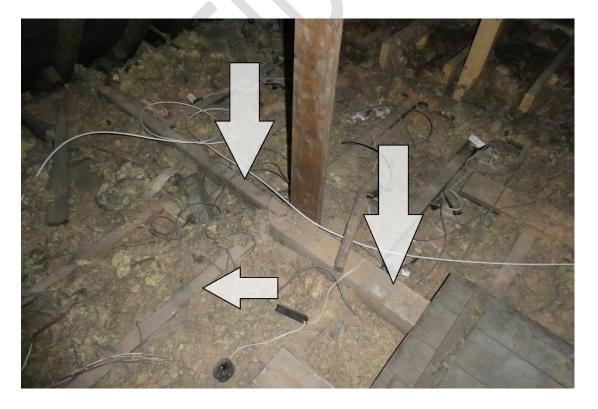


### 4.00 ROOF SPACES

THE ELECTRIC CABLES LOOK OLD.



ORIGINAL CEILING BINDERS SPANNING FRONT TO REAR AND ORIGINAL JOISTS SPANNING SIDE TO SIDE.





### 5.00 CHIMNEYSTACKS

- 5.01 There are two tall chimney stacks to the left-hand elevation: one to the front and the other to the rear.
- 5.02 Both appear to lean inwards. The stacks are tall, and this lean should be checked by the roofing contractor.
- 5.03 From the ground, we could not get a clear view of the complete flashings; again, these should be checked.
- 5.04 Apart from the lean, we saw no obvious issues to the brickwork.
- 5.05 There appears to be one open pot to the front and two to the rear. The pots require suitable "hats" or spigots to stop rainwater entering the flues.
- 5.06 The top of each stack does not have any flaunching. This stops rainwater percolating through the brickwork. A cap of flaunching should be applied.
- 5.07 To the rear, there is a third stack which served the kitchen. The top is capped with tiles or similar. The top would benefit from a layer of flaunching. The gas terminal means that the flue is sealed. An air brick should be inserted.

5.08 We saw no other issues to the rear chimney.

**Condition Rating 2** 

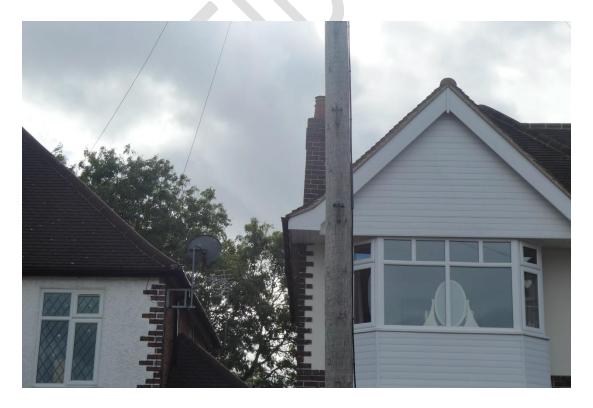


### 5.00 CHIMNEYSTACKS

FRONT SIDE CHIMNEY STACK.



LEAN TO FRONT SIDE CHIMNEY STACK AGAINST THE REASONABLY VERTICAL TELEGRAPH POLE.



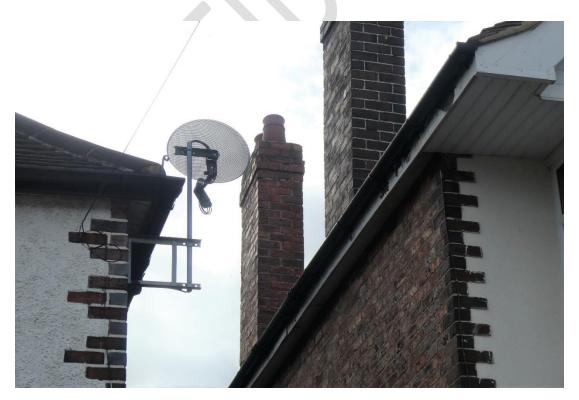


### 5.00 CHIMNEYSTACKS

REAR SIDE CHIMNEY.



REAR SIDE CHIMNEY.





### 5.00 CHIMNEYSTACKS

REAR CHIMNEY.



### EXAMPLE OF MORTAR FLAUNCHING.





### 6.00 PARAPET WALLS, RETAINING WALLS & BOUNDARY WALLS

6.01 We assume that the wall which retains this property's drive is your wall as it matches the front wall. This wall is retaining and is only single-skin brickwork. Initially, we thought that it was leaning because blocks have sunk slightly to the front pathway. A level measurement indicated that it is acceptable level.

6.02 No issues were noted to the front boundary 225mm wall.

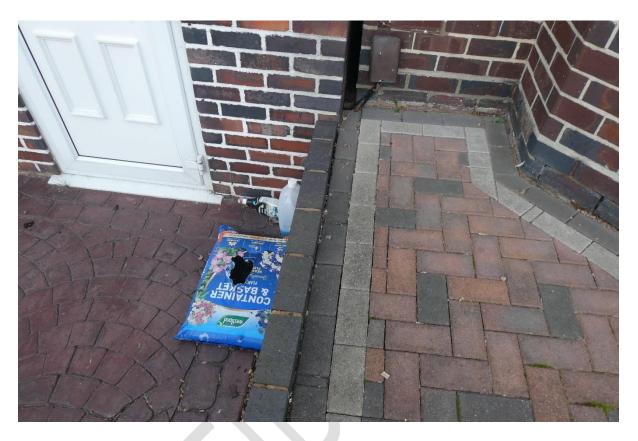
6.03 None to the rear.





## 6.00 PARAPET WALLS, RETAINING WALLS & BOUNDARY WALLS

BLOCKS HAVE SUNK HERE AND THERE IS A GAP AGAINST THE WALL.







### 7.00 FASCIAS AND SOFFITS

7.01 To the original house, the fascia and soffit boards are a mixture of original softwood and UPVC board without a vent. The softwood boards have not been maintained/painted for many years and all sections require attention prior to redecoration. This will require scaffold/tower access

7.02 We saw no issues to the original and extension sections with UPVC boards but were surprised that the soffit boards to the extension did not have ventilators to provide ventilation to the eaves.

# **Condition Rating 2**

ORIGINAL FASCIA/SOFFIT IN DISREPAIR.





### 7.00 FASCIAS AND SOFFITS

SOFFIT BOARD IN POOR CONDITION.



SOFFIT BOARD AND GABLE BOARD REQUIRE ATTENTION/REDECORATION.





#### 8.00 RAINWATER GOODS

8.01 To the rear, storm (kitchen gutter and branch of main downpipe) and foul (bathroom waste) are entering the same drain behind the small store. This mixing of drainage may not be acceptable to the water authority. The original drains may be a combined installation, but usually, drainage from a modern extension are separated into foul and storm. Your solicitor may have details with the deeds to identify the status of the original drains. If they are a separate installation, then all drainage needs to be directed to the correct underground system. The drainage survey should be able to determine that the correct drainage enters the correct underground system.

8.02 All of the rainwater installation is UPVC.

8.03 We noted:

- 1. The original installation was not renewed with the extension. We noted leaking joints to the rear and left-hand side. All leaking joints should be replaced.
- 2. There is leakage on the joint above the family room window. This is dampening the brickwork and should be replaced.
- 3. Stormwater discharge should be checked to the front channel. The channel was full of detritus/leaf litter. It needs to be cleared.
- 4. Downpipe shoe dislodged above the rear of the store. We refitted it, but this should be fixed in place to stop it falling off.
- 5. Right-hand neighbour's gutter appears to over sail the boundary. This should be discussed with your solicitor. This gutter has an open running outlet, so all rainwater from this gutter is falling onto the path to the side of the utility which is damping this area and the brickwork. The neighbour needs to realign the gutter and fit a downpipe to the front or rear.
- 6. The rear downpipe is cut short and discharges above the channel. This is dampening the brickwork and needs to be extended into the channel (see next item).
- 7. The channel along the rear is collecting rainwater from the downpipe. Due to the spa being on top of the grating, we could not lift the grating, so cannot confirm that there is a storm water connection. This should be checked, and the channel cleared of all detritus/leaf litter.
- 8. There is leakage on the kitchen gutter stop-end. This should be replaced.
- 9. The hopper and downpipe collecting the kitchen rainwater has not been fixed correctly. It looked like it could be pulled off the wall.
- 10. There is no gutter and downpipe to the lounge bay. Both should be fitted.



### 8.00 RAINWATER GOODS

8.04 To the whole roof, there are only two downpipes discharging to drains. This is a large roof for so few downpipes and we would expect the gutters to get overwhelmed in heavy rain. If this becomes a regular occurrence, additional downpipes will need to be installed and connected to storm connections. All joints to the gutters and the swan necks to the downpipes appear to leak.

8.05 Where downpipes discharge into or enter gullies, you should ensure that the rainwater enters the gulley without escaping into the adjacent ground. Leaking rainwater or wastewater gullies are a major cause of damp and subsidence.



### 8.00 RAINWATER GOODS

MOSS CAN BE SEEN TO THE LEAKING JOINT TO ORIGINAL SECTION AT THE REAR.



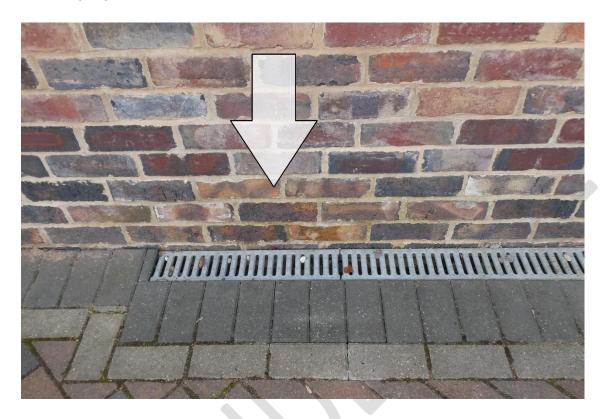
LEAKING JOINT ABOVE FAMILY ROOM.





### 8.00 RAINWATER GOODS

DAMP BRICKWORK.



999 IS THE MAXIMUM DAMP READING.





### 8.00 RAINWATER GOODS

COMPARISON MEASUREMENT TAKEN ABOVE THE DAMP AREA.



CHANNEL NEEDS TO BE CLEARED.





### 8.00 RAINWATER GOODS

DOWNPIPE SHOE IS LOOSE.



NEIGHBOUR'S OVERSAILING GUTTER AND OUTLET WITHOUT A DOWNPIPE.





### 8.00 RAINWATER GOODS

DOWNPIPE CUT SHORT AND DISCHARGING ABOVE THE CHANNEL. SPA IS ON TOP OF THE CHANNEL.



HOPPER AND DOWNPIPE NOT FIXED SECURELY.





### 9.00 EXTERNAL SOIL, WASTE AND VENTILATION PIPEWORK

9.01 The soil and ventilation pipe is fixed to the side of the property. It is modern UPVC. 9.02 We noted:

- 1. The top discharges just above head height and not above the roof eaves. The top is open which could allow sewer smells to the side of the house. The pipe should be extended, and an external air admittance valve installed.
- 2. There looks like there is leakage from one incoming waste connection. It should be repaired.
- 3. There is no maintenance access panel at the base.

9.03 We cannot comment upon the condition of the drainage connection at the base.

# **Condition Rating 2**

OPEN TOP TO THE SOIL AND VENT PIPE. SEWER SMELLS WILL COME FROM THIS PIPE.





## 9.00 EXTERNAL SOIL, WASTE AND VENTILATION PIPEWORK

LEAKAGE ON INCOMING WASTE.





#### 10.00 EXTERNAL WALLS

10.01 The original house walls are approximately 300mm thick; this is classed as "cavity construction".

10.02 We saw no evidence that the walls have received an injected cavity insulation, but your solicitor should enquire to see if there is a CIGA guarantee for an injection.

10.03 If an injection has been carried out, it is important to keep the walls in good condition. If injected insulation gets damp, it is difficult and expensive to remove the damp material. Further dampness can be caused by interstitial condensation within the cavity.

10.04 The walls will have cavity wall ties. The ties within these walls may not be sufficiently galvanised and may be in a state of corrosion. We did not see any signs of wall tie corrosion but did not carry out an invasive inspection. If you are concerned about this, the ties can be inspected by an invasive test by specialist companies.

10.05 The original openings within the walls may not have lintel support. At present this is not causing any significant issues but whenever you commission a company to replace window or door frames, you should ensure that they adequately support the brick panels above the openings whilst the frames are removed. At this point it would then be worthwhile introducing lintel support above unsupported openings.

10.06 We measured the extension walls and found them to be:

Porch: 330mm

Rear door of kitchen: 330mm

• Store side door: 360mm (this includes render coat).

10.07 As expected, the extension walls are modern cavity walls.

10.08 Your solicitor should ensure that there is full statutory approval (planning compliance certificate and Building Regulations Completion Certificate) for the extension.

10.09 We have not opened up the brickwork to inspect the cavity, so cannot comment upon the condition of the cavity, nor the presence and condition of wall-ties, frame-ties, nor insulation.

10.10 We saw no obvious issues with the external walls to the extension, and from our non-invasive survey, the brickwork appears to be constructed to a good standard (see DPC comment in section 11.00).

10.11 We noted:

#### <u>Left-hand side wall (original wall above neighbour's garage):</u>

Very limited inspection due to lack of access, but we did note that the flashing which is weatherproofing the joint beneath the neighbour's gutter has fallen out of this house wall. It should be refixed.



#### 10.00 EXTERNAL WALLS

#### Front elevation:

In relation to the original DPC, the paving is too high to the right-hand side of the bay and along the front. To reduce the risk of the brickwork above the DPC getting wet, a 200mm wide gravel border should be inserted across the front elevation wherever the paving is within 150mm of the DPC.

Small areas of recessing joints which need to be raked out and repointed.

UPVC cladding to bay appears to have over-clad a previous material. We could see the base of a softwood board which similar to the fascias/soffits has not been painted. It requires attention.

This bay section may be without insulation.

Similarly, the underside of the front small bedroom bay needs to be redecorated.

We saw nothing else of note.

#### Right-hand side elevation:

Dampness to the rear of the store/side of utility which is from downpipes leaks (see recommendations in section 8.00).

#### **Rear elevation:**

It looks like an original side lean-to or similar was built on top of to form the extension. We cannot confirm that the wall nor foundations were/are suitable. This should have been checked prior to building on top of the existing wall.

In relation to the original DPC, the paving is too high all across the rear. To reduce the risk of the brickwork above the DPC getting wet, a 200mm wide gravel border should be inserted across the rear.

Kitchen steps are partially blocking an air brick. Ideally, another air brick should be inserted.

Areas of brickwork have previously been raked out shallow and repointed. This shallow repointing is now falling out. All recessing joints need to be raked out to 25mm and repointed.

Brickwork behind the SPA is getting wet from the downpipe (see section 8.00).

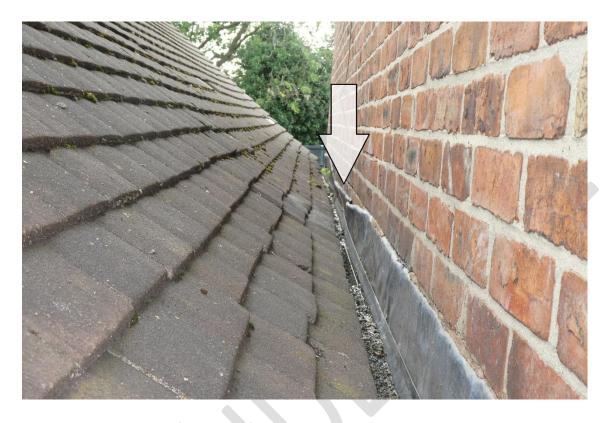
10.12 We saw no further issues to the walls.

10.13 Your solicitor should obtain the planning approval confirmation and Building Regulations Completion Certificate for the extension.

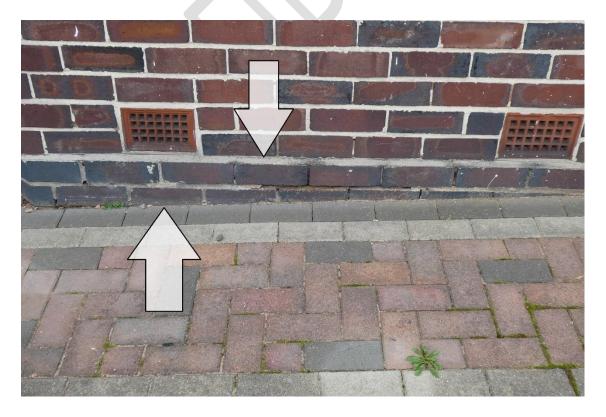


### **10.00 EXTERNAL WALLS**

LEAD FLASHING HAS FALLEN OUT OF THE BRICKWORK.



PAVING SHOULD BE 150mm (TWO BRICKS) BELOW THE DPC.





### **10.00 EXTERNAL WALLS**

BOARD BENEATH BAY CLADDING.



UNDERSIDE OF BAY.





### 10.00 EXTERNAL WALLS

IT LOOKS LIKE THE REAR OF THE EXTENSION WAS BUILT UPON AN OLD LEAN-TO.



AGAIN, THE PAVING IS TOO HIGH TO THE REAR.





### **10.00 EXTERNAL WALLS**

EXAMPLE OF SHALLOW REPOINTING.





#### 11.00 DPC

11.01 We could not see the original DPC. Usually, in properties of this age, the DPC is slate.

11.02 The brickwork to the extension is unusual because at the front, there is no sign of a DPC nor a change in bricks beneath a hidden DPC; yet, at the side where there is no render, we could see a short section of the DPC and see where the bricks were different.

11.03 Although this is a statutory inspection stage of building regulations, it is our experience that inspectors do not always inspect when called out. We cannot confirm that a DPC is in place to extension. The only way to determine if a DPC is included to the front, is to cut out a section of bed joint. This has not been carried out.

# **NOT INSPECTED**

THERE IS NO OBVIOUS DPC NOR CHANGE IN BRICKS BENEATH THE LEVEL OF A HIDDEN DPC.





### 11.00 DPC

THIS IS THE ONLY SECTION OF DPC THAT WE COULD ACTUALLY SEE. YOU CAN ALSO SEE THE DIFFERENT COLOUR BRICKS BENEATH THE DPC.





#### **12.00 WINDOWS**

- 12.01 The windows throughout are UPVC frames with double-glazed units.
- 12.02 The vendor informed us that all of the original windows apart from the kitchen and rear large bedroom, date from 2013. The kitchen and rear large bedroom windows predate this time.

### 12.03 We noted:

- <u>Front lounge bay</u>: The cill is low and the units are not toughened. Safety film should be applied to the glass. The casements operated satisfactorily.
- Kitchen: We could not open the casement.
- Rear large bedroom: Frame opening/casement slightly too narrow to comply with building regulations fire escape regulation. It measures 400mm-410mm but should be 450mm. You should ensure that you can escape through this window.
- 12.04 We saw no issues to the remaining windows.
- 12.04 The vendor indicated that the 2013 windows were covered by a Building Regulations Completion Certificate (BRCC) and not a FENSA certificate. Your solicitor should obtain this certificate.
- 12.05 Your solicitor should also obtain the FENSA compliance certificate for the older and new (unless covered by the overall BRCC certificate) installation.



### **12.00 WINDOWS**





#### 13.00 EXTERNAL DOORS

13.01 The front porch frame is UPVC with a double-glazed units. The units were toughened. The door is a composite door. It caught the frame when closing and may need adjusting. The cylinder is a 3\* security cylinder. Your solicitor should see if there is a FENSA compliance certificate for the porch frame/door. It may be covered on the overall building regulations approval.

13.02 The front entrance door is original timber in a single-glazed leaded side screen. If broken, the glass could be dangerous, and we recommend that it is changed for safety glass. There is no mortice lock to the door. One should be fitted.

13.03 The patio doors from the rear reception are bi-fold UPVC doors with double-glazed units. The units were toughened. The doors operated satisfactorily. Again, the Euro cylinders were 3\* security cylinders. The vendor indicated that these doors were installed in 2020. Your solicitor should obtain the guarantee and the FENSA certificate.

13.04 The rear doors from the kitchen are side hung UPVC pattern 10 with double-glazed units. The units are toughened. The doors operated satisfactorily. Again, the Euro cylinders were 3\* security cylinders. The vendor indicated that these doors were installed in 2020. Your solicitor should obtain the guarantee and the FENSA certificate.

13.05 The side door from the utility area is a UPVC 2XG with a double-glazed unit. The unit is toughened. The door was stiff to open and close and again, may need adjusting.

13.06 The front store door is UPVC. It operated satisfactorily.

13.07 Your solicitor should see if there are guarantees for each door.

13.08 You should request that the vendor arranges for the porch door and utility door to be eased.

**Condition Rating 1** 

#### 14.00 EXTERNAL DECORATIONS

14.01 This involves the external softwood eaves boarding etc which has been identified in the report. It all needs urgent repair/redecoration.

14.02 Due to access requirements, redecoration may be expensive, and you should obtain a quotation.



#### 15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

15.01 The internal partitions to the ground and first floor all appear to be solid partitions except the short section of partition to the left of the kitchen door and the partitions within the extended parts of the house which are stud partitions.

15.02 The perimeter external walls to the original property are a mixture of traditional two-coat plaster and dry-lined plasterboard. The walls to the extension are dry-lined.

15.03 The ceilings are all covered so we cannot confirm the specification.

15.04 Sections of the original side wall of the house have been removed to access the extension. Your solicitor should obtain the structural engineer's design for the removal and support.

#### 15.05 We noted:

- <u>Kitchen</u>: Slight shading to kitchen ceiling. It was dry with a damp meter, but the ceiling is beneath the bathroom. It needs to be monitored.
  - Disturbance to the kitchen bay ceiling. This may have been caused by the new roof structure/finish.
  - Disturbance around the kitchen doors most probably caused by the installation of the door set.
- <u>Small front original bedroom:</u> Staining/water mark to ceiling. Mark was dry with a damp meter. The area above is now part of the covered roof.
- Small rear bedroom (extension): Slight crack over door is shrinkage to stud partition.
- <u>Front large bedroom</u>: Slight cracking to bay and slight slope to bay ceiling. This could be caused by the weight of the roof slightly compressing the UPVC bay. We have recommended gallows brackets.

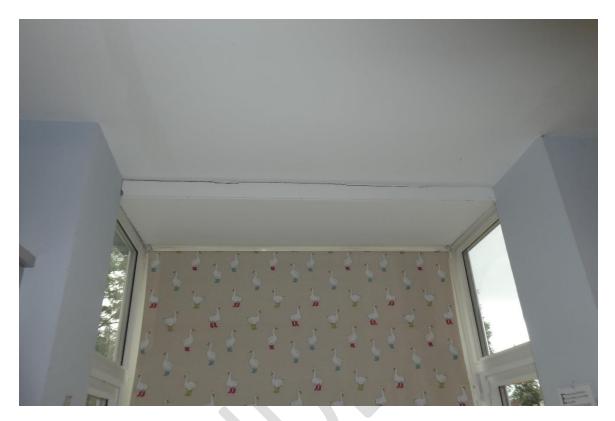
15.05 We saw no further issues and the inside of the property is in good condition.

15.06 All downlighters should be checked to ensure that they are fire-rated units. Where they are not, they should be replaced with fire-rated units. We noted that the bathroom are not fire rated and the hall look the same type of unit.



## 15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

DISTURBANCE TO KITCHEN BAY CEILING.



DISTURBANCE TO KITCHEN DOOR SOFFIT.





## 15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

WATER MARK TO BEDROOM CEILING.



CRACK TO BEDROOM STUD PARTITION.





#### 16.00 FIREPLACES, FLUES AND CHIMNEYBREASTS

- 16.01 The chimney breasts are still in place throughout the property.
- 16.02 The gas fire to the rear reception should be safety tested prior to using it.
- 16.03 There is a wood burning stove. The vendor indicated that it has a Building Regulations Compliance Certificate. Your solicitor should obtain the certificate. We noted:
  - 1. There is no obvious additional combustible air to the room.
  - 2. We could not find a CO detector.
- 16.04 You should request that the vendor arranges a HETAS engineer to inspect the installation. They should carry out all recommendations and provide you with a copy of the safety certificate.
- 16.05 The flues elsewhere are sealed. Each sealed flue should have an air brick to vent the flue.

# **Condition Rating 2**

#### **17.00 FLOORS**

- 17.01 All of the floors were covered with carpets, coverings and boards and we were unable to inspect them, our comments are therefore based on what could be determined through coverings. We cannot confirm that the covered structural elements of the floors are free of defects.
- 17.02 The floors to the original ground floor are suspended timber. The floors to the extension are solid, ground-bearing construction.
- 17.03 The upper floors are suspended timber.
- 17.04 We noted unevenness to the breakfast section of the kitchen (around the island). We do not know what has caused this. It may be sub-standard workmanship when the floor was repaired after installation of the island.
- 17.05 We cannot comment further.
- 17.06 Ideally, further air bricks should be installed to vent the original sub-floor void.

## **NOT INSPECTED**

#### 18.00 CELLAR

18.01 None and no inspection was carried out of the hidden sub-floor void.

**NOT INSPECTED** 



#### 19.00 DAMP

19.01 Due to the hall walls being dry-lined and covered in wood panelling, we were unable to test the hall walls.

19.02 The extension walls are dry-lined, and the boards are held a reasonable distance from the blockwork. In this instance, our moisture meter is limited in its ability to test through the void behind the plasterboard although we can test through "dabs". We did not record high readings where we could find dabs.

19.03 The reception room walls were tested, and we did not find high readings.

# **Condition Rating 1**

#### 20.00 WOODBORING BEETLE AND ROT

20.01 Please note that a limited inspection of roof areas was carried out and no inspection of floor voids was available.

20.02 Where we could inspect, we did not see beetle or rot, but external boarding has not been redecorated for many years and there may be sections of rot.

# **Condition Rating 1**

#### 21.00 INTERNAL FINISHES

21.01 The internal finishes are in good condition.

21.02 Paint containing lead may have been used within the original property. Use respiratory protection whenever you sand down the paintwork.



#### 22.00 INTERNAL JOINERY

- 22.01 Stairs: Timber construction we saw no issues.
- 22.02 Internal Doors: Panelled/moulded. Apart from the extension front bedroom, they all opened and closed satisfactorily. The extension front bedroom door needs to be eased.
- 22.03 Skirtings and Architraves: Softwood small section. We saw no issues.
- 22.04 Kitchen Units: Modern installation. We saw no issues.
- 22.05 There is an extractor fan which appears to discharge to the grill to the side. You should ensure that this connects and that you have a working extractor fan to the kitchen area.
- 22.06 We noted that the utility tap is connected the wrong way to the hot and cold supplies.

# **Condition Rating 1**

#### 23.00 SANITARYWARE

- 23.01 The installation of the WC beneath the stairs requires building regulations approval. The vendor indicated that they did not get approval. You should discuss this with your solicitor. We cannot confirm that waste connections were carried out correctly.
- 23.02 We tested the ground floor WC, ensuite WC and bathroom WC, and the bathroom WC requires a new valve. We suggest that you request that the vendor replaces this.
- 23.03 Due to the bathroom and ensuite shower being rain fall showers, we are at risk of getting wet when testing them; therefore, no testing was carried out. The showers did look like they were being used.
- 23.04 The ground-floor WC does not have an extractor fan. It will be difficult to install one and connect it to outside air.
- 23.05 We have commented upon the discharge from the bathroom and ensuite extractor fan ducts.
- 23.06 We have commented that the kitchen ceiling is slightly shaded. Potential leakage from the bathroom should be monitored.



#### 24.00 SERVICES

24.01 <u>Specialist tests should be carried out to ensure that electric, gas and heating installations are safe.</u>

24.02 Internal Wastes: Where visible these are generally plastic.

24.03 Plumbing Installation:

We could see sections of both plastic and copper pipe work. We cannot confirm the quality of the hidden installation.

There is a "sure-stop" switch to the kitchen unit. This cuts off the water supply when required. We could not see the incoming water main, nor the stop tap. The vendor was not sure if the incoming main was renewed as part of the extension works. Your solicitor should see if there is a water authority certificate for a mains replacement. If not, the material for the incoming main may still be in original lead; if so, it should be replaced in MDPE.

24.04 Heating Installation and Boiler:

The central heating boiler is in the store at the front of the property. It is a Worcester Bosch Greenstar 34CDI Classic Erp combination boiler.

The boiler operated for both central heating and hot water demand.

There is a magnetic system clean on the boiler. A magnetic system clean removes the buildup of sludge in the central heating system.

The condensate drain drops within the utility. We do not know where it connects to.

There is an external thermostat controlled by a phone app.

We noted that the tall kitchen radiators do not look like they are securely fixed. The front one looks very precarious. These should be checked by the Gas Safe engineer whilst safety testing the boiler or a heating engineer if the boiler has recently been serviced.

Your solicitor should obtain the guarantee and the Building Regulations Compliance Certificate for the boiler.

Your solicitor should obtain the service records for the boiler.

If the boiler has not been serviced recently (within the last six months), you should arrange for a Gas Safe engineer to safety test the boiler.

24.05 Gas Installation:

The meter is in the understairs cupboard. Electrical earth bonding is in place.



#### 24.00 SERVICES

#### 24.06 Electrical Installation:

We have commented upon the original electric installation that could be seen within the roof space. Your solicitor should obtain the Building Regulations Compliance Certificate for the original installation which the vendor informed us was renewed in 2013.

There are two consumer units both fitted in the porch. Both units have RCD protection but only on the main switch not on individual circuits. This means that if the RCD trips, the whole of the installation covered by the unit will turn off as opposed to the circuit that had tripped. The older unit has a sticker which states "next inspection 2023". To extend the installation into the extension, the original element should be safety checked. Your solicitor should ensure that this was carried out and reported on the certificate.

We recommend that the discharge to the mechanical extraction is checked to kitchen (we assume it connects to the high-level air brick to the side) and also that the first-floor extractors are taken to outside air.

Surveyors are not qualified to test the installation and no testing or invasive inspection was carried. You should commission a test by a NICEIC qualified electrician to determine that the installation is safe and meets your requirements in respect of socket outlets etc.

Again, your solicitor should obtain the Building Regulations Compliance Certificate for the extension installation.

#### 24.07 Drainage Installation:

24.07.01 There is a block in-fill inspection chamber to the front of property. Due to the weight of the cover, we could not lift it to view inside the chamber.

24.07.02 There is a slab in-fill inspection chamber to the rear of property. Again, due to the weight of the cover, we could not lift it to view inside the chamber.

24.07.03 There are modern gullies/connections to the side. We saw no original gullies. 24.07.04 We do not know if all of the underground drains were replaced as part of the construction of the extension. This should be investigated by the CCTV survey. If they were not, this is a concern, and you should ensure that they are not beneath the extension.

24.07.05 We have recommended that the front and rear channel are cleared of debris. The connection to a storm drain should also be checked to each channel.

24.07.06 We have commented that there may be storm and foul mixed. Again, this should be checked.

24.07.07 The CCTV survey can tell you if there are "shared" water authority owned drains on the property. If they are and they were built over by the extension, your solicitor should obtain the "build-over" agreement.

24.07.08 We cannot comment further upon the drains.

24.07.09 You should be aware that underground drainage is prone to leaking, becoming blocked or suffering damaged. This can only be assessed by carrying out a CCTV survey. We recommend that a CCTV survey is carried out prior to purchase and necessary works are carried out to ensure the integrity of the system.



### 24.00 SERVICES

"SURE-STOP" WATER ISOLATOR.



MAGNETIC SYSTEM CLEAN ABOVE THE BOILER.





### 24.00 SERVICES

BOILER CONDENSATE PIPE GOING INTO THE UTILITY. YOU CAN ALSO SEE THE THERMOSTAT REMOTE KEY.



RADIATOR IS NOT FIXED CORRECTLY TO THE WALL.





### 24.00 SERVICES

RADIATOR IS NOT FIXED CORRECTLY TO THE WALL.



### OLDER CONSUMER UNIT.





### 24.00 SERVICES

ALTHOUGH THE STICKER STATES "NEXT INSPECTION 2023", THE WHOLE INSTALLATION SHOULD HAVE BEEN CHECKED PRIOR TO EXTENDING IT INTO THE EXTENSION.



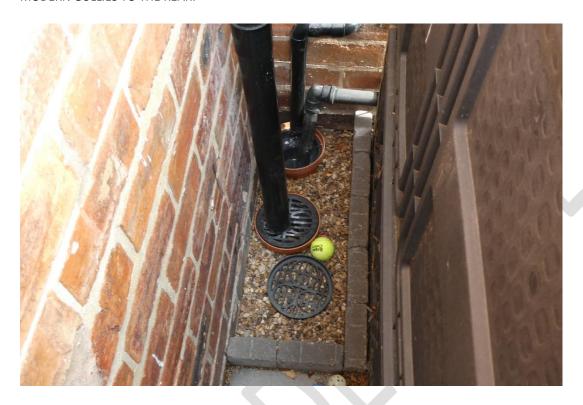
NEW CONSUMER UNIT WHICH ONLY COVERS THE KITCHEN PART OF THE EXTENSION AND SOME LIGHTS UPSTAIRS.





# 24.00 SERVICES

MODERN GULLIES TO THE REAR.



#### 25.00 ASBESTOS

25.01 We have not carried out an asbestos survey. Where visible, we have commented upon the potential for asbestos or asbestos containing materials within the property, but this is not an exhaustive list and caution should be exercised when working upon, breaking into, or removing potential risk items.

25.02 We did not see anything that appears to contain asbestos.

**Condition Rating 1** 



#### 26.00 FIRE PROTECTION AND MEANS OF ESCAPE

26.01 The escape in the event of a fire is via the front door.

26.02 There is only detection to the hall and landing which is unusual as we would expect the building regulations inspector to require a detector to the kitchen.

26.03 We recommend that mains operated, interlinked fire/smoke detectors are fitted to the kitchen (with heat detection), to the utility, to the family area and the front reception near the log burner.

26.04 We also recommend that a carbon monoxide detector is fitted adjacent to the central heating boiler, log burner and gas fire.

26.05 We have commented upon the bedroom window.

# **Condition Rating 2**

#### 27.00 NOISE SEPARATION

27.01 The only increase or enhancement to the original structure to assist in reducing noise transference are the double-glazed windows.

27.02 Whilst at the property, we did not notice any noise issues other than low flying commercial aeroplanes.

# NOT INSPECTED

# 28.00 EXTERNAL BUILDINGS AND CONSERVATORIES AND LANDSCAPING

28.01 Externally, the landscaping is in good condition and no issues were noted.

**Condition Rating 1** 



#### 29.00 LEGAL MATTERS

- 29.01 Obtain statutory approvals (planning permission and building regulations approval) for the extension.
- 29.02 Obtain structural engineer's design details for relevant works in the extension.
- 29.03 Did the designing architect issue an "Architect's Certificate" on completion of the extension? If not, discuss the option for a Professional Consultant's Certificate for the works or latent defects insurance.
- 29.04 The kitchen bay roof is not shown on the planning drawings. Discuss the implications of this addition.
- 29.05 The installation of the ground-floor WC would have required building regulations approval. The vendor indicated that approval was not obtained. Discuss implications.
- 29.06 Obtain building regulations compliance certificate for central heating boiler.
- 29.07 Obtain guarantee and service records for central heating boiler.
- 29.08 Obtain Building Regulations Compliance Certificate for the original (2013) and extension (2017) electrical installation.
- 29.09 Obtain inspection certificate for the original electrical installation prior to extending into the extension.
- 29.10 Obtain building regulations compliance certificate and service certificates for the wood burning stove.
- 29.11 Obtain FENSA certificates for the windows (both 2013 and 2017 windows may be covered by a Building Regulations Completion Certificate BRCC) and porch frame/door (may be a BRCC) and rear reception doors and rear kitchen doors.
- 29.12 Has a cavity insulation injection been carried out? If so, obtain the CIGA guarantee.
- 29.13 Is there a water authority approval certificate for the replacement of the incoming main? If not, it may not have been replaced and could be original lead.
- 29.14 Obtain guarantees for:
  - Roof finishes.
  - o Electrical installation to the original house and the extension.
  - Kitchen installation.
  - Bathroom/ensuite installation.
  - Extension windows and doors.
  - Rear reception room doors and kitchen rear doors.
  - Wood burning stove (log burner).
- 29.15 Is there a drainage plan in existence which will identify the location of drains and if any shared drainage (water board responsibility) cross the property. Has the extension been constructed on top of drains? Is the drainage a separate or a combined system?
- 29.16 Who is responsible for each boundary? This is particularly important in relation to the front left-hand boundary which is a small retaining wall.
- 29.17 Discuss gutter/downpipe to the neighbour's garage/extension which appears to oversail the boundary.



#### 30.00 SUMMARY

<u>CONDITION RATING 1</u> — The element's condition is commensurate with its age, and it is in a good or acceptable condition; however, as with all building materials, maintenance will still be required in the future.

6.00 PARAPET WALLS, RETAINING WALLS & BOUNDARY WALLS

13.00 EXTERNAL DOORS

15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

19.00 DAMPNESS

20.00 WOODBORING BEETLE AND ROT - where we could inspect.

21.00 INTERNAL FINISHES

22.00 INTERNAL JOINERY

23.00 SANITARY WARE - note comments regarding possible leakage.

24.00 SERVICES

25.00 ASBESTOS

28.00 EXTERNAL BUILDINGS AND CONSERVATORIES AND LANDSCAPING

<u>CONDITION RATING 2</u> — The element's condition requires attention from a specialist to provide a quotation as we deem that the element requires maintenance or replacement. This inspection/quotation should be carried out prior to purchasing the property so that you are aware of the costs and time involved. The findings may affect the value of the property but can usually be carried out once you occupy the property.

3.00 ROOF COVERINGS AND FLASHINGS

4.00 ROOF SPACES

5.00 CHIMNEYSTACKS

7.00 FASCIAS AND SOFFITS

8.00 RAINWATER GOODS

9.00 EXTERNAL SOIL WASTE AND VENTILATION PIPEWORK

10.00 EXTERNAL WALLS

**12.00 WINDOWS** 

14.00 EXTERNAL REDECORATION.

16.00 FIREPLACES, FLUES AND CHIMNEY BREASTS - no inspection of flues.

26.00 FIRE PROTECTION AND MEANS OF ESCAPE

<u>CONDITION RATING 3</u> — The elements condition is serious enough that it could have a detrimental effect on your enjoyment of the property, and we deem that the issue needs immediate attention from a specialist. You should not proceed without further investigation.

None.

<u>NOT INSPECTED</u> — We were unable to gain access to the element. We cannot confirm that the elements is present. If the element is present, we cannot confirm that it is positioned correctly, functioning correctly, nor free of issues or defects.

9.00 EXTERNAL SOIL WASTE AND VENTILATION PIPEWORK – *base.*11.00 DAMP PROOF COURSE
17.00 FLOORS
18.00 CELLAR
27.00 NOISE SEPARATION



#### 31.00 SURVEYOR'S OVERALL OPINION

31.01 The property offers you an extended, detached house in a popular part of \*\*\*\*\*\*\*\*

The property was extended in 2017 and several items are a concern.

Firstly, it appears that there was no professional architect or engineer input during the construction. This means that workmanship issues are evident, and we have recommended that a Professional Consultant's Certificate or latent defects insurance are investigated and obtained. These two options may not be available and if not, you will be left taking the risk of issues manifesting themselves once you own the property.

The main items of concern with the extension are:

- 1. Roof structure we have recommended works to address the issues noted. Further works may be required once the roof structure is safely accessed.
- 2. Roof finishes are not to BS5534. The main concern is untreated battens and lack of ventilation.
- 3. Apparent lack of DPC.

Apart from the above, you should be aware that the roof tiles used to the original house and extension, are old, and these old tiles will need maintaining in the future.

Everything else within our report, are either maintenance issues or "house-keeping" items and you should follow the recommendations given.

We strongly recommend that you obtain quotations for all the works and further investigations recommended within our report; these should be carried out prior to purchasing the property so that you know the financial and time implications associated with any findings.

You need to fully assess the issues found and the costs of these works before deciding to proceed with the purchase.

#### 31.02 Further Investigations.

- Unless recently carried out, commission a Gas Safe inspection of the gas installation, both gas fires and central heating boiler.
- Carry out a full survey on the drains to ascertain condition and identify existence or position of chambers.
- Commission a HETAS engineer to safety test the solid fuel burner arrangement.
- No electrical inspection recommended as we assume that it was all replaced in 2013 and 2017. If the original house installation was not renewed, a safety inspection should be commissioned.



Inspection carried out and report prepared and compiled by:

Midland Property Surveys Limited Knightlow Road, Harborne, Birmingham, B17 8QA.

For and on behalf of Midland Property Surveys Limited, \*\*\*\*\*\*

**Chartered Building Surveyor** 

www.mpsurveys.co.uk

\*\*\*\*\*

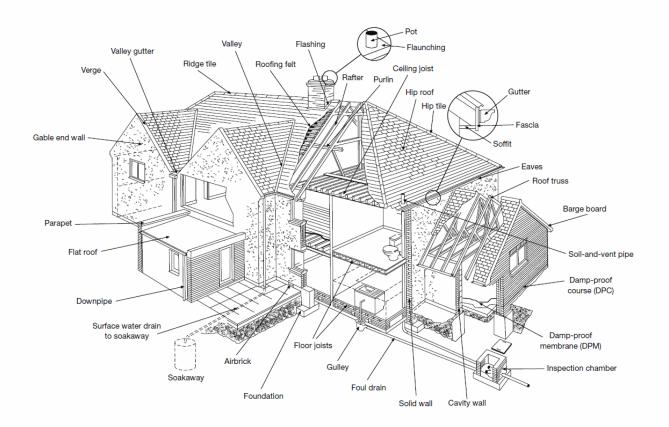
# **Regulated by RICS**

We pride ourselves on delivering a high level of service in accordance with the RICS regulations.



# Typical house diagram

This diagram illustrates where you may find some of the building elements referred to in the report.





#### **GLOSSARY**

Aggregate

Pebbles, shingle, gravel, etc used in the manufacture of concrete, and in the construction

of "soakaways".

Air Brick

Perforated brick or metal/plastic grille used for

ventilation, especially to floor voids (beneath

timber floors) and roof spaces.

Architrave

Joinery moulding around window or doorway.

Asbestos

Fibrous mineral used in the past for insulation.

Can be a health hazard - specialist advice should

be sought if asbestos is found.

Asbestos Cement School Cement

weights. Hazardous fibres may be released if cut

or drilled.

Ashlar Finely dressed natural stone: the best grade of

masonry

Asphalt

Black, tar-like-substance, strongly-adhesive-and

impervious to moisture. Used on flat roofs and

floors.

Barge Board See "Verge Board".

Balanced Flue

Common metal device normally serving gas
appliances which allows air to be drawn to the

appliance whilst also allowing fumes to escape

(see also "Fan Assisted Flues").

Batten

Thin lengths of timber used in the fixing of roof

tiles or slates.

Beetle Infestation (Wood-boring-insects: eg-woodworm) Larvae-of

various species of beetle which tunnel into timber causing damage. Specialist treatment

normally required. Can also affect furniture.

Benching Smoothly contoured concrete slope beside

drainage channel within an inspection chamber.

Also known as "Haunching".

Black, sticky substance, related to asphalt. Used

in sealants, mineral felts and damp proof courses.

Breeze Block Originally made from cinders ("breeze") - the

term now commonly used to refer to various

types of concrete and cement building blocks.

Carbonation A natural process affecting the outer layer of

concrete. Metal reinforcement within that layer is liable to early corresion, with consequent

fracturing of the concrete.

Cavity Wall Standard modern method of building external

walls of houses comprising two leaves of brick or blockwork separated by a gap ("cavity") of about

50mm (2 inches).

Cavity Wall Insulation Filling of wall cavities by one of various forms of

insulation material:

Beads: Polystyrene beads pumped into the cavities. Will easily fall out if the wall is broken

open for any reason.

Fibreglass: Can lead to problems if becomes damp.

Foam: Urea formaldehyde form, mixed on site, and pumped into the cavities where it sets. Can lead to problems of dampness and make investigation/replacement of wall ties more

difficult.

Rockwool: Inert mineral fibre pumped into the cavity.

Cavity Wall Tie Metal device bedded into the inner and outer

leaves of cavity wall. Failure by corrosion can result in the wall becoming unstable specialist

replacement ties are then required.

Cesspool

A simple method of drainage comprising a

holding tank which needs frequent emptying. Not

to be confused with "Septic Tank".

Chipboard Also referred to as "Particle Board". Chips of

wood compressed and glued into sheet form. Cheap method of decking to flat roofs and (with formica or melamine surface) furniture, especially

kitchen units. Also commonly used on floors.

Tends to swell if moisture content increased.

Collar Horizontal timber member intended to restrain

opposing roof slopes. Absence, removal or

weakening can lead to roof spread.

Combination Boiler Which activates on

demand. With this form of boiler there is no need for water storage tanks, hot water cylinders, etc

but are complex and more expensive to repair.

Water supply rate can be slow.

Coping/Coping Stone

Usually stone or concrete, laid on top of a wall as

a decorative finish and to stop rainwater soaking

into the wall.

Corbel Projection of stone, brick, timber or metal jutting

out from a wall to support a weight.

Cornice Ornamental moulded projection around the top

of a building or around the wall of a room just

below the ceiling.

Coving Curved junction piece to cover the join between

wall and ceiling surfaces.

Dado Rail

Wooden moulding fixed horizontally to a wall,

about 1 metre (3ft 4in) above the floor, originally intended to protect the wall against damage by

chair backs.

DPC - Damp Proof Course

Laver of impervious material (mineral felt, PVC,

etc) incorporated into a wall to prevent dampness around windows, doors, etc. Various proprietary methods are available for damp proofing existing walls including "electro-

osmosis" and chemical injection.

DPM - Damp Proof Membrane

Usually polythene, incorporated within ground

floor slabs to prevent rising dampness.

Deathwatch Beetle Serious insect pest in structural timbers, usually

affects old hardwoods with fungal decay already

present.

Double Glazing A method of thermal insulation usually either:

Sealed unit: Two panes of glass fixed and hermetically sealed together; or Secondary: In effect a second "window" placed inside the original window.

Dry Rot

A fungus which attacks structural and joinery

timbers, often with devastating results. Can

flourish in moist, unventilated areas.

Eaves The overhanging edge of a roof at gutter level.

Efflorescence Salts crystallised on the surface of a wall as a

result of moisture evaporation.

Engineering Brick	Particularly strong and dense type of brick,
	sometimes used as a damp proof course. Usually
	<del>blue or red in colour.</del>
Fan Assisted Flues	Similar to "Balanced Flue" but with fan assistance
	to move air or gases.
<del>Fibreboard</del>	Cheap, lightweight board material of little
	strength, used in ceilings or as insulation to attics.
<del>Fillet</del>	Mortar used to seal the junction between two
	surfaces, ie between a slate roof and a brick
	<del>chimney stack.</del>
<b>Flashing</b>	Thin sheet material used to prevent leakage at a
	roof joint. Normally metal (lead, zinc or copper).
<b>Flaunching</b>	Contoured cement around the base of chimney
	pots, to secure the pot and to throw off rain.
<del>Flue</del>	A smoke duct in a chimney, or a proprietary pipe
	serving a heat producing appliance such as a
	central heating boiler.
Flue Lining	Metal (usually stainless steel) tube within a flue -
	essential for high output gas appliances such as
	boilers. May also be manufactured from clay and
	<del>built into the flue.</del>
Foundations	Normally concrete, laid underground as a
0/2	structural base to a wall; in older buildings may
	be brick or stone.
Frog	A depression imprinted in the upper surface of a
	brick, to save clay, reduce weight and increase
	the strength of the wall.
Gable	Usually side wall with an apex (triangular in shape
	at the top). Can also be on the front of a roof
	<del>(again, triangular).</del>
Ground Heave	Swelling of clay subsoil due to absorption of
	moisture; can cause an upward movement in
	foundations.
Gulley	An ananing into a drain narmally at ground lavel
<del>ouney</del>	An opening into a drain, normally at ground level,

placed to receive water, etc from downpipes and

waste pipes.

Haunching	See "Benching". Also term used to describe the
	support to an underground drain.
<del>Hip</del>	The external junction between two intersecting
	<del>roof slopes.</del>
Inspection Chamber	Commonly called "manhole"; provides access to a
	drain comprising a chamber (of brick, concrete or
	plastic) with the drainage channel at its base and
	a removable cover at ground level.
<del>Jamb</del>	Side part of a doorway or window (see also
	<del>"reveals").</del>
<del>Joist</del>	Horizontal structural timber used in flat roof,
	ceiling and floor construction. Occasionally also
	<del>metal.</del>
<del>Landslip</del>	Downhill movement of unstable earth, clay, rock,
	etc often following prolonged heavy rain or
	coastal erosion, but sometimes due entirely to
	subsoil having little cohesive integrity.
Lath	Thin strip of wood used as a backing to plaster.
Lintel	Horizontal structural beam of timber, stone, steel
	or concrete placed over window or door
	<del>openings.</del>
Longhorn Beetle	A serious insect pest mainly confined to the
	extreme south east of England, which can totally
	destroy the structural strength of wood.
<del>LDC</del>	Liquid Petroleum Gas (or Propane). Available to
	serve gas appliances in areas without mains gas.
	Requires a storage tank.
Mortar	Traditionally a mixture of lime and sand. Modern
▼	mortar is a mixture of cement and sand. Used for
	bonding brickwork, etc.
Mullion	Vertical bar dividing individual lights in a window.
	5 5
	Stout post supporting a staircase handrail at top
<del>Newel</del>	and bottom. Also, the central pillar of a winding
	<del>or spiral staircase.</del>

<del>Oversite</del>	Rough concrete below timber ground floors.
<del>Parapet</del>	Low wall along the edge of a flat roof, balcony, etc.
<del>Pier</del>	A vertical column of brickwork or other material used to strengthen the wall or to support a weight.
Plasterboard	Stiff "sandwich" of plaster between coarse paper. Now in widespread use for ceilings and walls.
Pointing	Smooth outer edge of mortar joint between bricks, stones, etc.
<del>Powder Post Beetle</del>	A relatively uncommon pest which can, if untreated, cause widespread damage to structural timbers.
<del>Purlin</del>	Horizontal beam in a roof upon which rafters rest.
Quoin	The external angle of a building, or, specifically, bricks or stone blocks forming that angle.
Rafter	A sloping roof beam, usually timber, forming the carcass of a roof.
Random Rubble	Primitive method of stone wall construction with no attempt at bonding or coursing.
Rendering	Vertical covering of a wall either plaster (internally) or cement based (externally), sometimes with pebbledash, stucco or Tyrolean textured finishes.
Reveals	The side faces of a window or door opening (see also "jambs").
Ridge	The apex of a roof.
Riser	The vertical part of a step or stair.
Rising Damp	Moisture soaking up a wall from below ground, by capillary action causing rot in timbers, plaster decay, decoration failure, etc.

**Roof Spread** 

The thrust of a badly restrained roof structure

(see "Collar") causing outward bowing of a wall. **Screed** Final, smooth finish of a solid floor; usually mortar, concrete or asphalt. **Septic Tank** Drain installation whereby sewage decomposes through bacteriological action, which can be slowed down or stopped altogether by the use of chemicals such as bleach, biological washing powders, etc. **Settlement** Movement in a structure showing as distortion in walls, etc, can be as the result of the initial compacting of the ground due to the loading of the building or by unsupported elements of the building. **Shakes** Naturally occurring cracks in timber; in building timbers, shakes can appear quite dramatic, but strength is not always impaired. **Shingles** Small rectangular pieces of wood used on roofs instead of tiles, slates, etc. Sheet metal (usually lead, zinc or copper) at the Snaker iunction of a roof with a vertical surface of a chimney stack, adjoining wall, etc. Associated with flashings which should overlay soakers. The under-surface of eaves, balcony, arch, etc. Soffit Heating fuel, normally coal, coke or one of a Solid Fuel variety of proprietary fuels. Space above and to the sides of an arch. **Spandrel** Stud Partition Lightweight, sometimes non-loadbearing wall construction comprising a framework of timber faced with plaster, plasterboard or other finish. **Subsidence** Ground movement possibly as a result of mining activities, clay shrinkage or drainage problems. Subsoil Soil lying immediately below the top soil, upon which foundations usually bear.

<del>Sulphate Attack</del>	Chemical reaction, activated by water, between

tricalcium aluminate and soluble sulphates. Can cause deterioration in brick walls, concrete floors

and external rendering.

Tie Bar Heavy metal bar passing through a wall, or walls,

to brace a structure suffering from structural

instability.

Torching

Mortar applied on the underside of roof tiles or

slates to help prevent moisture penetration. Not necessary when a roof is underdrawn with felt.

Transom

Herizontal bar of wood or stone across a window

er top of door.

Tread The horizontal part of a step or stair.

Trussed Rafters Method of roof construction utilising

prefabricated triangular framework of timbers.

Now widely used in domestic construction.

Underpinning Methods of strengthening weak foundations

whereby a new, stronger foundation is placed

beneath the original.

<del>Valley Gutter</del> Herizontal or sloping gutter, usually lead or tile

lined, at the internal intersection between two

<del>roof slopes.</del>

**Ventilation**Necessary in all buildings to disperse moisture

resulting from bathing, cooking, breathing, etc,

and to assist in prevention of condensation.

Floors: Necessary to avoid rot, especially dry rot, achieved by air bricks near to ground level.

Roofs: Necessary to disperse condensation within roof spaces; achieved either by air bricks in gables, ducts at the eaves or vents in the roof finish.

Verge The edge of a roof, especially over a gable.

<del>Verge Board</del> <del>Timber, sometimes decorative, placed at the</del>

verge of a roof: also known as a "Barge Board".

Wainscot Wood panelling or boarding on the lower part of

an internal wall.

Wallplate

Timber placed at the eaves of a roof to take the weight of the roof timbers.

Wet Rot

Decay of timber due to damp conditions. Not to be confused with the more serious "Dry Rot".

Woodworm

Collequial term for beetle infestation; usually intended to mean Common Furniture Beetle, by far the most frequently encountered insect

attack in structural and joinery timbers.

#### 24 OO GENERAL INFORMATION

#### MAIN ROOF

#### **Pitched Roofs**

A pitched roof is the name given to any roof with an angle of pitch greater than 10 degrees. Such roofs can be covered with a wide choice of material but, with residential property, tile, slate or thatch are the principle ones.

The actual angle of the roof slope has to be right for the chosen roof material whilst the roof construction (i.e. the timberwork) must be designed to bear not only the weight of the covering but also the extra weight of rain, snow and wind, etc. If the design of the timberwork is wrong the roof timbers may deflect and water penetration is likely to occur.

Where the edges of a roof butt up against brickwork or a chimney, etc. it is necessary to insert seals known as soakers or flashings. These are ideally formed in lead but in older properties cement mortar or concrete is often used as a cheaper alternative. These eventually crack and leak.

Where two roof slopes join (often at right angles), a valley junction is created. These valleys can be formed with tiles or they can be lined in materials such as lead, zinc or glass fibre. The only way valley gutters can work effectively is to have them cleaned out on a regular basis even although access is often difficult. If you do not clean out valley gutters, leaks are very likely.

#### OTHER ROOFS

#### Flat Roofs

It is impossible to predict accurately the life of a flat roof. Even if the external materials appear sound, a minor puncture in the covering material can cause problems beneath (often out of sight). Reports that predict the likely life of a flat roof should be viewed with caution, although we often attempt to give a general guide to be helpful.

Flat roofs have always been considered a part of residential house design. Traditionally they were used on small or secondary areas. From the 1960's onward, large flat-roofed areas were brought into use but these days we try to minimise flat roof areas and create pitch roofs where possible since most flat roofs are troublesome to some extent or other.

A flat roof is defined as a roof as having a slope less than 10 degrees. To enable the rainwater to run off its surface, the flat roof must be laid with some slope and if this is too shallow water will collect in puddles on the surface. Such puddles or "ponding" can cause the roof to deteriorate. Damage can also be caused to the substructure under the covering.

Most flat roofs are not designed for walking on and chippings pressed underfoot can cause punctures in the roofing material. Walkway tiles can, however, be purchased and bedded down when a walkway route is needed.

Many problems with flat roofs occur on the edges of the roof or in the junctions with walls or nearby roof slopes. Any vertical edging or flashing often indicates a better than average attention to detail. Felt upstands and edge kerbs are very often torn and need careful and regular attention and checking. The best designed flat roofs will incorporate modern levels of insulation and will also contain sufficient ventilation to reduce the risk of rot in concealed structural timbers. Being realistic the majority of flat roofs are not built this way and are therefore prone to problems developing out of sight.

Although felt in one form or another is the most common material found on modern flat roofs, there are others including lead, copper, zinc, fibreglass and asphalt.

#### COVERINGS

#### **Thatched Coverings**

Thatch is one of the oldest techniques still used in building construction today. There are two main materials used — water reed and wheat straw. Water reed is more durable, lasting up to 80 years approximately. Wheat straw comes as either long straw (lasting up to 25 years approximately) or combed wheat reed (which can last up to 40 years).

The speed at which a thatch roof deteriorates is difficult to judge. Generally, the further west a property is, the faster its thatch deteriorates due to the wetter climate. The quality of the thatching material and the slope of the roof also affect the life of a thatch.

The steeper the roof slope, the longer the thatch is likely to last. Thatched roofs should never be less than 45° and sometimes can be steeper. It is common for thatched roofs to need patching or replacement of the ridge which is likely to be needed every 10-15 years.

Fire is a well known risk with thatch. Electrical wiring needs to be checked regularly and ideally a spark arrestor should be fitted to the top of the chimney to prevent sparks and materials falling onto the thatch. It is always good practice to have the chimney lined. Smoke detectors and fire extinguishers are essential additions within the property.

#### **Slate Coverings**

Slate can last anything up to 100 years or more depending on quality, source, thickness, and the skill with which it was cut.

Natural slates are formed by very thin layers of rock being bonded together. Poorer quality slates may contain impurities which react with water and force the layers apart. This "delaminating" is common on the underside of the slates.

Slates are held by nails fixed via holes drilled either close to one end or at the centre. It is quite common for slates to split when being fixed but then be left in place, only to slip later. Nails inevitably corrode in time and slates start to slip. This is known as "nail fatigue". Take not of this if it is listed in Section 3 Roof, as it will mean that you face ongoing maintenance. You can identify where slates have already been re-set as they are usually held in place by lead or copper clips, known as tingles. Old slates often shale to a degree whereby their effectiveness is very limited.

Problems with slate roofs have led some owners to apply a coating over the whole of the covering. This should never be considered an appropriate repair. It can make the roof watertight for a few years. It will certainly mean that complete renewal of the roof will be necessary, as good slates when over-coated cannot be reused. It is also likely to cause condensation problems as the roof stops breathing. Traditionally, slate roofs were not underfelted and, this allows the slates to breathe. This practice still has its supporters, but generally, underfelting is considered as important with a slate roof as with a tiled roof. The underfelt provides a secondary protection against leaks if the slates are breached.

There are various proprietary coatings available which are applied to the underside of old slate roofs. Whilst these do undoubtedly provide a short term repair, the medium or long term merits of such a system are untested and a lot of surveyors believe these under spraying systems to have a very limited life and should not be used.

#### **Clay Tiles**

Clay tiles come in all shapes and sizes ranging from flat (plain) tiles to those which overlap at the edges and form vertical rolls on the roof slope. Clay Tiles have been used widely for many years, although since the post-second world war period, concrete tiles have tended to have been used as an alternative. By nature a clay tile is not impervious to moisture and, as it ages, some water enters into the tile. This can lead to damage of the tile surface (lamination) when the moisture freezes and breaks off the face of the tile itself, both internally and externally. Where this is visible, beware—ongoing maintenance is needed. Tiles are either nailed onto roofing battens or hung onto the battens by means of nibs which are formed in their upper edge. Most manufacturers recommend that even tiles with nibs are nailed at regular intervals to prevent them being lifted by the wind. Corrosion of nail fixings is commonplace (known as nail sickness) and will mean ongoing maintenance. Due to the method of manufacture, tiles are often not flat, which allows water to be blown or drawn up between them and can cause dampness inside, especially if the roof is an unlined one. In time the nibs can shale away.

Occasionally old wood pegs or aged random nails are found on very elderly roofs.

If you are considering recovering a roof, do take advice before changing the covering material.

There are various proprietary coatings available which are applied to the underside of old clay tiled roofs.

Whilst these do undoubtedly provide a short term repair, the medium or long term merits of such a system are untested and most surveyors believe these under spraying systems to have a limited life.

#### **Concrete Tiles**

Concrete tiles are reckoned to last at least 50 years. The general performance of concrete tiles is impressive, though they can be prone to lose surface colour which shows up replacement tiles. Sometimes a powdery "efflorescence" can be seen under the tiles. This is simply salts contained in some earlier concrete tiles emerging due to heat and dampness over a period of years. Eventually the tiles' nibs can be croded away, though this is likely to take many years.

Certain tile shapes (especially pantiles) have an open void in them which needs sealing at gutter/base level mainly to prevent birds nesting under tiling and causing damage. It is often difficult to tell from ground level whether these seals are in place and it is always sensible to carry out a check whenever a property is being maintained or painted. Modern patent eaves level seals also allow important ventilation. In the course of time concrete tiles can become brittle.

#### **RAINWATER GOODS**

Inadequate disposal of rainwater can cause serious problems in a building including damp, timber decay and structural movement. Keeping gutters and downpipes (and the drains to which they connect) clean and in good condition is always important.

Gutters and downpipes are traditionally made in cast iron but with modern property, plastic is generally used. In addition, however, we frequently survey properties with asbestos, lead, tin or aluminium as alternatives. All gutters need to be laid to a slope in order to enable rainwater to run to a downpipe outlet. Guttering should always be fixed so that it catches as much water flow as possible from the roof above. Guttering systems frequently run on an inter-neighbour basis with semi-detached or terraced homes. Metal fittings are particularly prone to corrode and joints often fail. They need regular checks and maintenance if they are to be preserved.

Traditionally downpipes discharge over open gulleys but today many downpipes are taken directly into the underground drainage system without an access gulley. This can cause problems for cleaning.

#### **CHIMNEYS**

Chimney stacks can be built in a variety of shapes heights and sizes, often elaborate for architectural purposes. However, the flues within the stacks are formed in one of two ways. Older houses have flues with a rendered internal face that can often fail and erode, causing smoke and fumes to escape and also causing general inefficiency. More modern properties have continuous liners that are effective for solid fuel and other fuels. Some old properties have flues which are just not adequate for modern use. Flue soundness and efficiency in older homes must never be assumed. Proper smoke tests are normally required to check flue soundness. If necessary old flues can be lined in order to bring them up to modern standards.

#### **EXTERNAL WALLS**

#### Stone Walls

Stone is described according to the manner in which it is prepared and laid. The two main categories are known as ashlar and rubble. When stones are squared to a regular size and have smooth faces, they are known as ashlar. Rubble comprises stones of differing sizes which are either laid at random (a crazy paving appearance) or they can be laid roughly in courses.

Many of our stone buildings are made of stone which is very aged and may have been re-cycled from previous buildings. Some types of stone are harder and more durable than others

Frost is a major problem with some stones softening as water penetrates the surface and freezes, causing the surface to break off and at the same time allowing more water to penetrate into the core of the wall causing more damage.

Poor repairs to stone work and the pointing between the stones can cause ongoing problems and it is always sensible to take the advice of a stone mason to ensure that repairs are appropriate.

Because stone walls are generally thick, there is a popular conception that they are solid from inside to out. This is not always the case and the core of the wall is often filled with rubble and general debris.

#### Solid Brickwork

Until the mid-1930's most domestic property in this country was built in solid construction. This means that the bricks are laid in such a way that they run through the depth of the wall from inside to out and as a consequence this can permit damp to travel through the wall onto the internal surfaces. Generally a wall which is exposed to heavy driving rain will be more susceptible to damage than one which is sheltered. Areas under window sills tend to be more susceptible to water damage than other wall areas. In order to minimise the risk of damp penetration, the outside pointing and brickwork should be kept in as good a state as possible. Modern coatings are available to apply to solid brickwork to help weatherproof them but these do not always look attractive. They can cause problems if damp breaks through the coating and gets behind the weatherproofing.

Heat loss tends to be greater through solid wall construction than it is through a cavity wall. A solid wall with a rendered finish can perform well if the render is maintained in a sound state.

It tends to be inevitable that houses with solid wall detail suffer on occasions from condensation problems.

Many older and inter-war built houses have projecting bays as a feature of the wall design. Often the upper storey bay wall is not built in brick at all but in timber—generally without any insulation.

#### **Cavity Walls**

This is the normal form of construction found on houses from the mid-1930's to the present day, although many older houses have a variation of the same form of wall detail.

As the name implies, cavity walls are constructed with two leaves of brick or block work—with a cavity between. The benefits of the cavity are that the wall cannot let water through its depth whilst the air in the cavity offers improved insulation standards.

The outer and inner leaves of a cavity wall are usually stabilised with ties made of galvanised steel or plastic.

In some cases, the ties which hold the outer and inner leaves together begin to rust. At first, they expand causing the outer leaf to bow and eventually may collapse. Cavity wall tie failure is more common in older houses (prior to 1980) and is often known to be a problem in particular areas. We will alert you to potential maintenance regarding cavity wall ties if there are visible signs of problems or if we are aware of previous problems in nearby properties.

Even though cavity construction is effective, water can sometimes penetrate the outer skin of the wall.

Cavity trays should be inserted over window and door openings to catch this water. There should be drainage channels left through the mortar joints from these trays although they are frequently omitted. Brick is the most common form of outside finish on a cavity wall. Frost often attacks older bricks causing the surface to break off. This is known as "spalling". Repair work is possible but costly if the job is to be done properly and the best approach is to cut out the failed bricks and replace them.

It is common to see salty stains, particularly on new brickwork. They are of no structural significance and can be brushed off or left to be dispersed by weather action over a period of time.

A rendered finish or some form of cladding applied to the outside of a modern cavity wall often indicates that both leaves of the wall are of block without any brick content.

#### Rendering

against the weather.

Modern cement render can be inappropriate for old buildings because it is incompatible with the construction of most old buildings and can cause or accelerate serious decay. Modern buildings generally depend on an impervious outer layer and cavities to keep out moisture. By contrast, old buildings tend to rely on their porous nature ('breathability') to allow water absorbed by the fabric to evaporate back out The use of an impervious Portland cement render in place of a traditional lime-based covering restricts evaporation. Hairline cracks form due to the mortar being more rigid than the wall. These then draw in water that becomes trapped in the fabric. Timber-framed and earth constructed buildings in particular can suffer major structural damage if moisture builds up behind a cement rendering.

It is generally a mistake not to replace render. There is a good chance that the building was rendered

When a sement render has been removed, re-rendering should be delayed for a short period to allow drying out if the underlying fabric is saturated. Additionally, any areas of decayed backing must be made sound before the new render is applied to prevent its early failure.

originally. Even if it was not, the rendering may have been applied at a later date as necessary protection

#### WINDOWS, DOORS AND EXTERNAL JOINERY

#### Windows

Traditionally windows were constructed in wood and generally old timber tends to be better than new timber and hardwood is more long lived than softwood.

Increasingly wooden windows are being replaced with man made materials. During the 1970's and early 1980's aluminium units set in hardwood frames were very popular. Many of these windows, however, have become temperamental in the way they open and close. These days uPVC is the most commonly used material for replacement units and if looked after and if of a good standard these windows perform well. With PVC windows it is important to keep the material as clean and dry as possible and to maintain the mastic seals around the frames in a good state to help prevent any damp penetration. Regular maintenance of the window mechanisms tends to be necessary. Failure of the rubber seals and bushes tends to occur. It is vital to check whether any current guarantees are in force.

With increased importance being paid within the building industry to insulation standards the quality of glazing has improved over the years, but many houses still have comparatively "ordinary" single glazed windows whilst some high quality triple glazed units are sometimes found.

Unfortunately many double glazed windows suffer from failure causing the glass to mist over and the only solution is to replace the glazing. This type of failure can occur without warning. There are some indications that the average life of a sealed double glazing unit is some ten years only.

Some houses built between 1920 and 1960 had steel framed windows. These are prone to rusting and as the metal corrodes and expands, the windows can become twisted or buckled and panes crack or break. This type of material also creates a cold surface which can lead to a high level of condensation. Lead light windows may look pretty, but they are troublesome to clean and do weaken with age.

#### **Doors**

External softwood doors are the cheapest to fit, but the least durable. Unless very regularly decorated they will decay. Hardwood doors are better. Aluminium or uPVC replacement units are claimed to be the most efficient of all.

The raised sill sections used with uPVC doors are vulnerable to foot damage.

#### DAMP PROOF COURSES

A damp-proof course (DPC) is a waterproof layer built into, or formed within, the walls to prevent ground dampness from rising.

Virtually every urban property built in the last 120 years or so will have some sort of damp proof course in its wall. Many materials are in use, some being better and longer lived than others. The majority of the houses built in the last 60 years or so has a felt or pick based damp proof course along with blue brickwork. Before then slate or bitumen were frequently used. Many older houses have no built-in anti-damp protection.

In order that a DPC can perform properly its line ought always to be at least two clear courses of brick above paths or garden surfaces. Whenever a lesser distance exists, the DPC can become ineffective and internal dampness can occur.

Many older buildings suffer dampness due to inadequate damp proofing measures. The installation of a modern injection system (often identified by a series of drill holes in the brickwork) together with associated internal replastering can remedy such dampness. All damp proofing work ought to be dealt with by a competent and recognized specialist firm who can issue a valid guarantee. Internal replastering is an essential part of most damp proofing schemes.

#### INTERNAL WALLS AND PARTITIONS

Traditional, internal walls have always been built in solid materials (brick or block), or timber. Contrary to popular belief, timber walls can be load bearing.

Modern houses often have lightweight non-load bearing thin partition walls especially at first floor level.

All these different wall types give differing standards of noise and thermal insulation.

Many wooden or partition walls are difficult to use to support heavy fixings or pictures. Special fixings are generally available for most wall types.

Many modern homes have a dry lined (plasterboard type) finish to walls which may not easily accept heavy fixtures, but the system is effective and plaster shrinkage problems are minimised.

In older properties, the walls are often lined with board to disguise or overcome problems of poor plaster, damp and insulation. This can be effective but long term problems can still arise.

#### **ELOORS**

#### **Solid Floors**

Solid floors are normally made up with a concrete slab laid on a hardcore base. The hardcore helps spread the load evenly over the soil beneath and protects the concrete from chemicals in the soil. To achieve a floor that does not settle, hardcore needs to be well compacted. If the floors should subside, repair work is possible but can be costly.

Concrete slabs are typically around 150mm thick and have a thin top layer (screed) which gives a level base for the floor finish (tile, carpet etc). Sometimes the slab is just smoothed off to provide a finishing surface without a screed.

Solid floors should include a damp proof membrane (dpm). This is usually either a liquid bitumen coat or a layer of polythene or bitumen sheet. The dpm reduces moisture coming up through the floor by capillary action, though it does not resist direct water pressure. Poor workmanship on site often means that a dpm is torn or laid with gaps or laid with gaps which become damp spots later.

In older properties original floors tend not to have a dpm and often suffer from dampness. These floors are often an important feature of the property and if the level of dampness is felt not sufficient to warrant lifting and re-laying the floor surface to include a dpm, these floors tend to be left and the damp lived with. However these floors should not be surfaced with any impermeable covering such as vinyl or rubber-backed carpet (and ideally should be left exposed).

#### Timber Floors

Suspended timber floors have been used for many years without great design changes. Most problems result from under-sizing of the joists or poor conditions at the end support (bearing), or poor sub-ground ventilation.

Joists bearing into solid walls (usually pre-World War II) can rot, particularly if the wall is exposed to prevailing winds and rain soaks through the brick or stonework.

Very often, joists are cut or notched, to allow pipes and wiring to run under floorboards. There are clear regulations which now restrict what can be done, but all too often mistakes are made, sometimes resulting in the floor becoming springy. If the surveyor suspects this fault we will suggest further investigation is made.

To prevent joists twisting, strutting is inserted usually some halfway along its length. Strutting is usually made with pieces of timber which are nailed between two joists at right angles to their length. When they are omitted the floor can become uneven or springy.

When surveying a building it is rarely possible to carry out a full level of sub-floor checks and the surveyor will base their view on such inspection as is readily possible.

More recent properties often have sheet chipboard/man made board flooring in place of more traditional floorboards. Because these materials can be laid in large panels, removal to access services can result in a very squeaky floor developing since the sheets are rarely properly re-fixed. The material tends to disintegrate on prolonged exposure to moisture and problems often occur near showers or washing machines in particular.

#### **CEILINGS**

# **Lath and Plaster Ceilings**

Most modern ceilings are made of plasterboard, but up to World War II a plaster mix was applied onto thin strips of wood called laths. (In very old properties reeds or straw were often used to strengthen to material). The strength of this type of ceiling depends on how well the plaster keys into the laths. When the plaster starts to pull loose from the laths, it often becomes widespread and repair of a small crack can soon become a large repair. Vibration and noise can often be a cause of a lath and plaster ceiling to fail. The installation of central heating can also cause old plaster to simply dry out so much that it cracks and fails. It is not uncommon for old lathed ceilings to be covered over with a variety of materials and finishes. Over boarding in modern plasterboard is a common solution to a troublesome ceiling. Lathed ceilings are heavy and can fall unexpectedly if damaged!

# **Plasterboard Ceilings**

For nearly 50 years now plasterboard has replaced the use of lath and plaster in most ceiling construction. Boards come in a variety of thickness and in general are relatively maintenance free.

Joints between boards are most commonly covered by tape. Hairline cracking along the joints, however, is not uncommon though relatively simple to fill and redecorate or lining paper can be applied prior to a decorative finish.

Dampness is a problem for plasterboard which is made up of a plaster centre covered by heavy paper on both sides. When moist, the paper covering deteriorates and the plaster content generally swells and crumbles. Replacement is then normally necessary.

Artex or similar textured finishes are popular but these are not easy to repair to a good standard and may contain Asbestos (depending on age).

#### DAMPNESS

#### Damp & Timber Treatment - Guarantees

Very often in older properties we find that previous damp and timber treatments have been carried out and are subject to guarantees.

Particular care needs to be exercised in respect of wood-rot, woodworm/beetle and damp guarantees.

A guarantee will normally only cover those areas specifically treated, and this is normally identified in the original report, specification and plan.

It is important that such documents are made available to you and your Legal Adviser. Insurance protection is sometimes available for un-treated areas.

#### **TIMBER DEFECTS**

#### **Timber Defects**

As a general word of caution, in older properties, it is our experience that there are likely to be timbers within the structure which have deteriorated over the years due to possible wood-worm/beetle infestation, damp or other reasons, and may be decayed and a cause of potential problems in the future.

#### GAS

As with electricity, defects can be life-threatening and are even harder to detect. We can form some impression of the attention given to the gas installation by the appearance of the fittings and will note our concerns. That apart, it is essential that every property which is provided with gas has a test and service every year. If a test is overdue, arrange one immediately. Make sure that the contractor you instruct on any gas matters has a current registration with Gas Safe. If the surveyor considers that further investigations are needed he will say so.

All gas appliances and flues must be subject to an annual check and test.

Surface run gas pipes both inside and out must be treated with care to avoid damage.

#### WATER SUPPLY AND PLUMBING

# Pipework & Tanks

Most pipework in a building is concealed within the structure and fabric and we can only form an opinion based on the exposed parts of the installation.

Copper tube is the most popular material used but in many new installations plastic is becoming increasingly popular as a cost effective alternative.

In many older houses we still find old lead or galvanised piping, especially on the underground supply pipe. Some homeowners consider lead pipes to be a health risk. Old underground pipes can leak for many years undetected or suddenly burst unexpectedly. Replacing underground/floor pipes can be costly and disruptive.

Water tanks come in a variety of shapes and sizes but plastic is the preferred modern material. In older properties we find older galvanised steel or cement asbestos tanks and ideally these should now be replaced.

#### HOT WATER INSTALLATION, BOILERS, CONTROL EQUIPMENT, SPACE HEATING, ETC.

The ability of any central heating system to sufficiently heat all areas required depends on the efficiency of the boiler and the size and efficiency of the pipe runs and radiators. In order to tell accurately whether a central heating system is adequate, Heating Engineers have to carry out a series of calculations involving size of radiators, room and window sizes, capacity of the boiler etc. For this degree of assessment, a Heating Engineers' involvement is essential.

Modern combination boilers are increasingly popular, but they may produce limited amounts of hot water for bathing with poor levels of pressure.

#### FOUL AND SURFACE WATER

#### **Drains**

Foul drains are those taking waste from inside the building — WC, bath, kitchen, etc Below ground drainage systems must fulfil two functions in order to avoid problems:

- 1. they must discharge waste efficiently into the main sewer
- 2. they must avoid foul smells escaping near to the property

A correct slope (fall) is required to all drainage runs. Where gradients are too shallow, matter can build up and drains will need to be rodded on a regular basis. It is for this reason that the building regulations insist that an inspection chamber is provided where ever drains change direction or gradient. In some cases, small access gullies known as rodding eyes are provided.

One of the most common causes of problems in drains is damage caused by tree roots which get into drains in search of water. We will advise you if there are likely problems in this regard, though it is important not to plant shrubs or trees close to drainage runs.

Many houses of all ages have drain runs which are not as watertight as they should be. This can only be determined by the carrying out of a formal test which is not part of a Building Survey inspection.

It is a good practice to regularly flush through drains with hot soapy water.