PRIVATE & CONFIDENTIAL REF: 0493/19

BUILDING SURVEY ON ************************

> ************, ********,



Date of Survey: Two separate visits – ****** and ******

Weather: Heavy rain 12°C and second visit dry 18°C.



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1.00 THE PROPERTY

1.01 Tenure

This should be verified by your solicitor. We have not seen any legal documentation in relation to the tenure.

1.02 Description

The property is accessed from *******. It is a detached property. It has brickwork walls overlain with render to areas and a clay plain tiled pitched main roof. To the side is a part integral garage that leads on to a covered area. Behind this is a utility room which is an in-fill between the kitchen and original outbuildings. The kitchen has a rear extension. Above the garage, there is an ensuite extension.

1.03 Accommodation:

<u>Ground Floor</u>: Porch, hallway leading to stairs, WC, dining room, rear lounge, kitchen/breakfast, utility, garage.

First Floor: Four bedrooms (one with ensuite shower-room) and bathroom.

1.04 Outbuildings and Parking

Parking is on the private drive. We did not measure the garage for vehicular access.

1.05 Approximate Age

From historical maps, it appears that the property was constructed when the 1938 map was drawn.

Your solicitor can confirm the date of the actual construction.

1.06 Orientation

The front of the property faces approximately south east.

1.07 Location and Amenities

The property is located in an established residential area containing properties of differing styles but similar ages. Amenities are close to the property.

1.08 Roads and Footpaths

Your solicitor should check whether the roads and footpaths are fully adopted.

We saw no indication to believe that they are not.



2.00 SCOPE OF INSPECTION

- 2.01 The purpose of the inspection and the verbal and written reports is to put the <u>present</u> 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 All directions are given as if facing the property from the front door.
- 2.03 Externally the property was inspected from ground level to the front and rear. No long ladders were used. Our inspection of all of the roof finishes were carried out from the ground.
- 2.04 Areas of the roof space were without fixed boards, so we could not carry out a close inspection of these areas. There was no access to the roof space above the garage or utility (outbuilding) or the kitchen extension. We cannot confirm that any area that we could not inspect is free of defects.
- 2.05 The property was fully furnished and occupied at the time of our inspection.
- 2.06 Within the property, there were units within the utility and kitchen, large built in units/wardrobes to the bedrooms, and sanitaryware to the bathroom and shower-room. We cannot comment on the condition of walls and floors where these items were placed.
- 2.07 All floors were covered throughout with a mixture of coverings and we were unable to inspect them. Other than where stated, we cannot confirm that theses floors are free of defects. 2.08 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. We are therefore unable to report that any such part of the property is free from rot, beetle, fungal growth or other structural or non-structural defects. For the purpose of this report we have assumed that there are no defects to any hidden structural frame or contamination from or within the ground. 2.09 A Building Survey does not comment on the potential for flash floods, coastal floods, urban floods, fluvial or pluvial flooding. You should discuss any concerns you have with your solicitor who will arrange an Environmental Report to be carried out on the property.
- 2.10 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.
- 2.11 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.



3.00 ROOF COVERINGS AND FLASHINGS

Main roof, lounge projection roof, garage roof, porch roof, utility tiled roof, kitchen extension roof and ensuite roof finish.

- 3.01 These roofs are covered in clay plain tiles. The tiles are original to the main roof, lounge projection roof, garage roof, porch roof, utility tiled roof and will be reclaimed to the kitchen extension and ensuite.
- 3.02 The ridge, hips and valley tiles are a matching clay tile.
- 3.03 There is no sarking underlay to the main roof, garage roof and utility roof. We could not see one to the extension (although one could be in place) and the ensuite roof was too high to inspect.
- 3.04 You should be aware that the original tiles are over eighty years old and this is beyond the expected life (70 80 years) for a clay tile.
- 3.05 Considering their age, the roof finishes are in good condition, but we noted:
 - 1. There are gaps to the tiles to the front (bedroom one) and side gabled roof areas. This is an indication that the gable brickwork has moved slightly outwards (laterally) see section 4.00.
 - 2. To the main roof to the left of the front dormer (bedroom four), the roof is slightly concave. This is an indication of a deflected purlin again, see section 4.00.
 - 3. The main ridge tiles have been recently repointed, but the utility ridge has not.
 - 4. To the rear of the main roof (north west), there is a small amount of moss which indicates that the tiles are starting to hold dampness.
 - 5. We could only see three replaced tiles. This is an indication that the tile nibs are still in good condition.
 - 6. Although we could not clearly see the bottom rows of tiles above the rear and front bay, we did note that to the rear, it appears that the tiles are deteriorating. This is caused by the tiles being fixed and held against the damp felt. This area should be inspected as part of the bay roof finish renewal and any deteriorated tiles replaced.
 - 7. The valley above bedroom one and bedroom four has been replaced due to extensive leakage. It has been replaced in felt and not lead or single ply membrane (EPDM). Although this appears to have addressed the leakage, we would have preferred to see the valley lined with lead or EPDM as the felt will only give you ten to twelve years (from new) of waterproofness. Your solicitor should obtain the guarantee.
 - 8. To the abutment of the garage roof and main house wall, there are saplings growing in the flashing. These should be removed.
 - 9. Further up this abutment, is the area above the cupboard within the ensuite entrance. Within this cupboard, there is extensive leakage. We notified the vendor and following our inspection, the vendor has contacted us and confirmed that there was an internal plumbing leak and possibly a roof leak which is being investigated. We do not know whether these leaks have been repaired. You should discuss this with the vendors and ensure that guarantees are passed to you in your name.



3.00 ROOF COVERINGS AND FLASHINGS

3.06 It is our opinion that the roof finishes are currently satisfactory, but we have spoken to you about the fact that the roof finishes will need major work/renewal within the next ten years (approximate). This will involve lifting, sorting and relaying/replacing tiles upon a modern geotextile membrane to include new battens and tile ventilators. We would expect this to cost in the region of £15,000.00 - £18,000.00 in today's prices. You should now arrange for a roofing contractor to provide a quotation so that you are aware of this future cost.

Front and rear bay roof finishes.

- 3.07 These were too high to inspect.
- 3.08 From the ground we could see the edge of the rear bay (bedroom two) and it is old felt that looks like it has a reasonable amount of moss upon it.
- 3.09 From within the bedroom, there were two small spots to the ceiling which could be the initial signs of leakage.
- 3.10 Due to the lead/zinc apron around the front bay (bedroom one), we could not see the material that covers this roof.
- 3.11 There were no obvious signs of leakage beneath this roof, but the integral gutter is leaking behind the apron (see section 8.00).
- 3.12 We recommend the roofing contractor provides a quotation for the replacement of these two roofs and you budget for renewal in the near future.

<u>Utility</u>.

- 3.13 The glazed section of the utility is Georgian wired cast glass in profile roof bars.
- 3.14 The flashing is old lead which is dressed into the brickwork to the original outbuilding; it goes up and over the front parapet wall (may be leaking), and is dressed under the render to the main house.
- 3.15 On our first visit, it was raining heavily, and although we did not see any obvious leakage (drips), the top of the front wall beneath the parapet is stained as if the area is leaking. We tested with a damp meter and there was dampness, but we also registered similar readings elsewhere within the utility and this could be due to the fact that the area is unheated, and we were measuring atmospheric damp as opposed to leakage; however, the parapet wall is only single skin brickwork, and without a cavity, even two-skins of brickwork will not be effective at stopping penetrating dampness. You should monitor the area and budget for works to the flashings. You should budget in the region of £750.00.

Covered area.

- 3.16 This area is covered in polycarbonate roof sheets. On our first visit, this area was leaking quite badly and the wall above and around the kitchen window was sodden.
- 3.17 The roof sheets are flashed with aged bitumen tape against the single skin utility parapet wall. This has de-bonded and is contributing to the leakage within the covered area and may also be the source of damp readings to the parapet within the utility. Although this is an open plant growing area, the leakage is concentrated around the edge of the roof sheets which is dampening the walls, so we recommend that the flashings are renewed.



3.00 ROOF COVERINGS AND FLASHINGS

Ensuite dormer.

- 3.18 Although the roof tiles have been included in the earlier section, there are waney edge boards that cover the walls of the dormer projection.
- 3.19 On the day of our fist inspection, the boards were soaking up the rain, and these boards will have a limited lifespan and have to be periodically redecorated. We, therefore, recommend that they are removed, the dormer insulated (if not already) and single ply membrane (EPDM) sheet fitted to each elevation.

Action: Obtain a quotation to re-roof the original tiled areas on modern membrane, new battens and ventilators (see section 4); remove saplings; budget for renewal of bays (imminent); monitor and budget for renewal of utility lead flashing; renew covered area flashing; budget for renewal of ensuite waney edge boards to walls.



3.00 ROOF COVERINGS AND FLASHINGS

REPAIR TO VALLEY HAS BEEN CARRIED OUT IN BITUMEN FELT.



TILES TO FRONT ELEVATION ARE IN GOOD CONDITION. THIS IS THE AREA WHERE THE DEFLECTED PURLIN CAN BE SEEN IN THE ROOF-LINE (NOT OBVIOUS ON PHOTOGRAPH).





3.00 ROOF COVERINGS AND FLASHINGS

NOTE GAP TO TILES ABOVE FRONT GABLE.



AGAIN, ROOF TILES IN GOOD CONDITION. NOTE WANEY EDGE BOARDS TO THE ENSUITE WALLS.





3.00 ROOF COVERINGS AND FLASHINGS

GAP TO THE TILES TO THE OTHER SIDE OF FRONT GABLE.



WANEY EDGE BOARDS. THE DAMP INTERNAL CUPBOARD IS INSIDE THIS AREA.





3.00 ROOF COVERINGS AND FLASHINGS

TILES ABOVE THE FLAT ROOF ARE BEING AFFECTED BY DAMPNESS.



MOSS TO REAR ELEVATION.





3.00 ROOF COVERINGS AND FLASHINGS

MOSS TO REAR ELEVATION.



OLD FELT COVERED IN MOSS TO REAR BAY.





3.00 ROOF COVERINGS AND FLASHINGS

LEAD/ZINC APRON TO FRONT BAY. RAINWATER IS DRIPPING FROM BEHIND IT (SEE SECTION 8.00).



REMOVE SAPLINGS.





3.00 ROOF COVERINGS AND FLASHINGS

OLD BITUMEN TAPE ABOVE COVERED AREA. THIS IS THE SINGLE SKIN PARAPET WALL TO THE UTILITY.



LOOKING AT THE FRONT ELEVATION OF THE UTILITY ROOF. RIDGE TILES NOT REPOINTED.

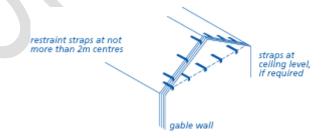




4.00 ROOF SPACES

Main Roof Space.

- 4.01 Access to the main loft space is above the landing. The main area of the loft floor is covered in boards, but dormer areas do not have boards, so we viewed these areas from the boards. This is not a thorough inspection of the un-boarded areas.
- 4.02 The underside of the tiles does not have a modern sarking underlay.
- 4.03 When this property was constructed, the tile battens had a sand/lime/horse-hair torching fillet applied to them. This stopped wind driven snow and rainwater entering the roof space. The torching to this roof is still mostly intact and we assume that this is because it has been repaired in the past. Unfortunately, due to age, it is starting to turn sandy which could hold dampness next to the battens and rafters. We have recommended that the roof finish is lifted and relayed upon an underlay within the next ten years. You should obtain a quotation now, so that you are aware of future costs.
- 4.04 Surface moisture reading of battens indicated a reasonably low moisture content to battens. This indicates that the clay tiles are not leaching dampness through the battens.
- 4.05 The roof structure is a "carpenter's cut-roof" with one purlin to each elevation.
- 4.06 The roof space is large, and it is unusual to see just one purlin to each elevation, but in this property, the purlins were supported with horizontal/diagonal timbers.
- 4.07 When viewed from the front, the roof slope is slightly concave, and this can be seen in the loft space as deflection to the front purlin to the right-hand side. This may be due to the fact that at least one, possibly two support props were removed when the loft hatch was installed. To support this purlin, a 150mm X 75mm prop should be placed diagonally down onto the top of the stairwell wall.
- 4.08 From within the loft, the rear purlin also looks deflected. Again, a prop should be inserted similar to the front purlin.
- 4.09 The tiles to the front and left-hand gable roofs indicate lateral movement of the brickwork, and again, this can be seen to the left-hand wall within the loft space. To support the gables, we recommend that lateral restraint straps are fixed from each gable across the roof structure. The right-hand gable wall has a chimney breast as lateral support, but it would still be prudent to restrain the brickwork.





4.00 ROOF SPACES

- 4.10 Away from the boards, there is very little insulation. Current recommendations are that lofts contain at least 270mm of quilt insulation. Ideally, the boards should be lifted, and a uniform 300mm of quilt insulation laid across the whole floor. If you wish to keep the boards, we recommend that they are lifted and PIR insulation to a similar U-value as 300mm of quilt is installed beneath them.
- 4.11 There are uninsulated water pipes which also need insulating.
- 4.12 Chimney brickwork registered damp with a damp meter. Although this is normal, we noted loose flashings to the stack and have recommended works in section 5.00.
- 4.13 The loft hatch should be upgraded to an insulated, fire rated hatch.
- 4.14 Due to the lack of access into the dormers, we cannot confirm that these areas are free of rots or woodworm. This is particularly relevant to the area below the valley gutter between bedroom one and four.

Action: Prop purlins; restrain gables; insulate loft floor and water pipes; insert fire-rated hatch.



4.00 ROOF SPACES

TORCHING IS STILL INTACT.



TORCHING IS STILL INTACT.





4.00 ROOF SPACES

SURFACE MOISTURE TO BATTEN.



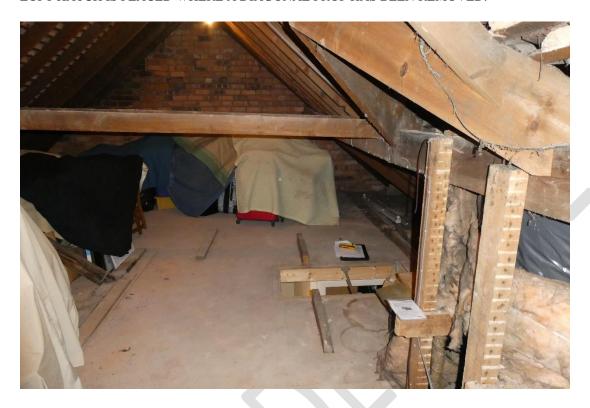
SURFACE MOISTURE TO BATTEN.





4.00 ROOF SPACES

LOFT HATCH IS PLACED WHERE A DIAGONAL PROP HAS BEEN REMOVED.



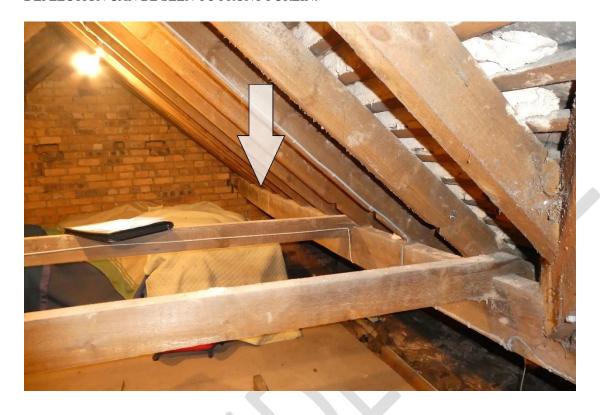
LOFT HATCH IS PLACED WHERE A DIAGONAL PROP HAS BEEN REMOVED.





4.00 ROOF SPACES

DEFLECTION CAN BE SEEN TO FRONT PURLIN.



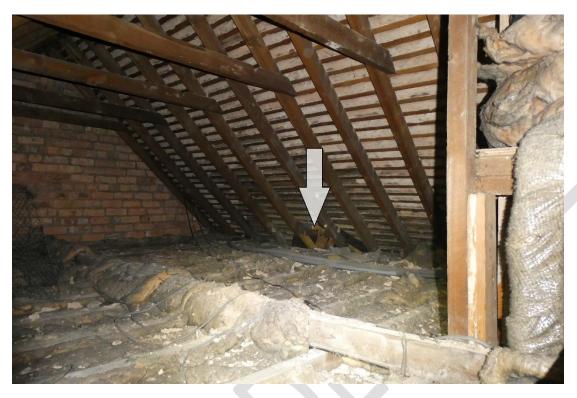
LOOKING INTO THE AREA ABOVE BEDROOM ONE.





4.00 ROOF SPACES

LOOKING INTO THE AREA ABOVE BEDROOM ONE. NOTE ENSUITE ROOF AT FLOOR LEVEL.



ABOVE BEDROOM FOUR. GABLE IS NOT BRICKWORK AND THEREFORE, DOES NOT NEED TO BE RESTRAINED.





4.00 ROOF SPACES

MOISTURE TO CHIMNEY BRICKWORK. 999 IS THE MAXIMUM READING.



UNINSULATED WATER PIPES.





5.00 CHIMNEYSTACKS

5.01 We viewed the chimneys from ground level. We have commented upon what could be surveyed through binoculars but there were areas of the chimneys that could not be seen from the ground and can only be seen whilst on the roof. You therefore should assume that our comments are the minimum works required and further works may be necessary particularly to brickwork and flashings.

5.02 We noted:

• Rear right-hand chimney:

- The stack leans to the right. The lean is enough where it would be prudent to reduce the stack in height. A Gas Safe engineer should comment upon the required height of a gas fire serving flue.
- Flashings are original lead or zinc. They appear loose and this could contribute to the dampness measured whilst in the roof space. They should be inspected as part of the stack reduction.
- o The brickwork is in reasonable condition.
- o There are two open pots. These should have caps to stop rainwater ingress.
- Once the stack is reduced, flaunching should be placed on the top of the brickwork. The lack of it will contribute to dampness and degradation of the brickwork.

• Rear Chimney:

- The brickwork is in reasonable condition, but is damp at the top due to a lack of flaunching. The flaunching should be renewed.
- Flashings are original lead or zinc. They appear satisfactory, but should be inspected as part of the side stack reduction.
- The top has one pot with a redundant flue spigot; we could not see the other cap. A suitable spigot should be placed upon the top.
- 5.03 The roofing contractor should thoroughly check the chimneys as our ground level survey is limited.
- 5.04 They should quote for all current and future works listed in 3.00 and 5.00.
- 5.05 A further stack has been removed above the roof. This originally served the dining room and bedroom one.

Action: Reduce height of side stack; check brick joints; apply flaunching to top of stacks; place suitable spigots upon open pots.

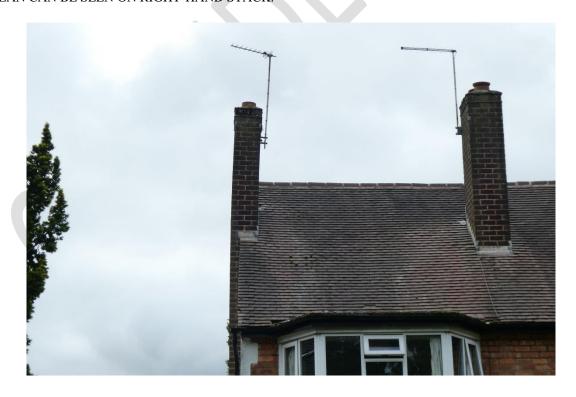


5.00 CHIMNEYSTACKS

LEAN CAN BE SEEN ON RIGHT-HAND STACK.



LEAN CAN BE SEEN ON RIGHT-HAND STACK.



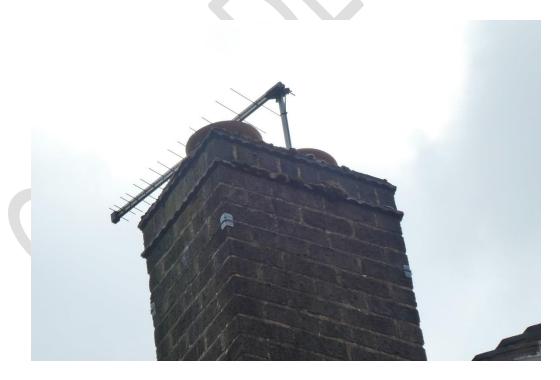


5.00 CHIMNEYSTACKS

FLASHINGS ARE LOOSE.



TOP OF REAR STACK IS DAMP.





6.00 PARAPET WALLS, RETAINING WALLS & BOUNDARY WALLS

6.01 We have commented upon the single skin parapet wall above the utility/covered area and the risk of penetrating dampness. If this becomes an issue, the exposed areas will need to be covered in single ply membrane (EPDM).

6.02 There is a 225mm retaining wall to the front garden. There are two repointed cracks which indicate lateral failure which is usually caused by tree pressure. There is no tree and there are no obvious stumps to the planted area. We cannot comment further.

6.03 Around the patio there is a small sandstone wall that retains the lawn. Some of the blocks are loose and need re-bedding.

6.04 We assume due to the brickwork and type of brick used, that the right-hand boundary wall within the side area belongs to the neighbour.

Action: Re-bed loose blocks.

REPOINTED CRACK TO FRONT WALL.





6.00 PARAPET WALLS, RETAINING WALLS & BOUNDARY WALLS REPOINTED CRACK TO FRONT WALL.



LOOSE BLOCKS TO REAR WALL.





FASCIAS AND SOFFITS

- 7.01 The eaves detail around the main property is softwood fascia and soffit boards.
- 7.02 Generally the installation is in reasonable condition although it has not been repainted recently.
- 7.03 The eaves detail around the utility contains a soffit board that we could not clearly identify as softwood and it could be asbestos board. If left undisturbed, there should be no risk to health.
- 7.04 Areas of eaves boarding around the rear of the garage has not been painted recently, and may be rotting.
- 7.05 Generally, the eaves boards would benefit from redecoration.

8.00 RAINWATER GOODS

8.01 The rainwater system to the property is aged UPVC with certain downpipes original cast iron.

8.02 We noted:

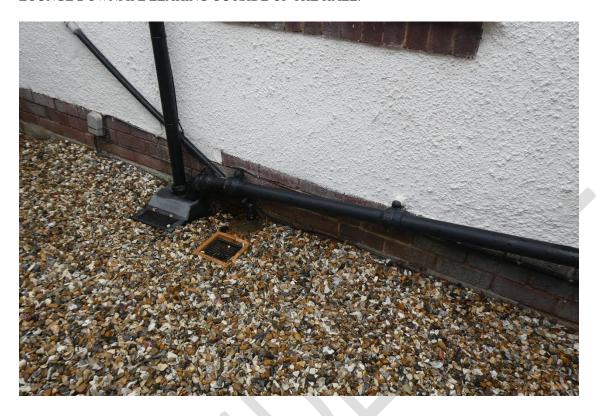
- The joints to the front left-hand cast iron downpipe are in poor condition and would benefit from renewal.
- The bay to bedroom one does not have an external gutter and downpipe. Rainwater is leaking from the integral gutter which is behind the lead/zinc apron. As part of the bay roof finish renewal, the apron should be removed, and a conventional gutter and downpipe installed.
- The gutter around the rear bay (bedroom two) is leaking and should be replaced.
- Leakage from the cast iron down pipe that extends from the lounge projection to the gulley at the side of the hall. This could be causing the dampness to this wall and the rotting joists. The pipe should be replaced in its entirety.
- 8.03 The above replacements should be carried out as soon as possible. As part of the future roof finish renewal, scaffold will be in place and this should be used to replace all of the gutters and downpipes.
- 8.04 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.

Action: Replace rainwater installation as specified. Budget for future complete renewal.

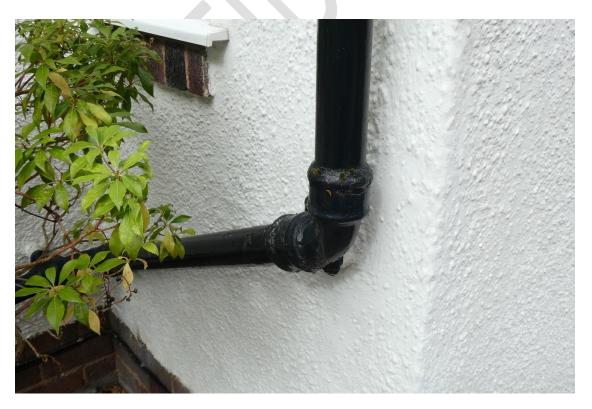


8.00 RAINWATER GOODS

LOUNGE DOWNPIPE LEAKING OUTSIDE OF THE HALL.



LOUNGE DOWNPIPE JOINT IS IN POOR CONDITION.



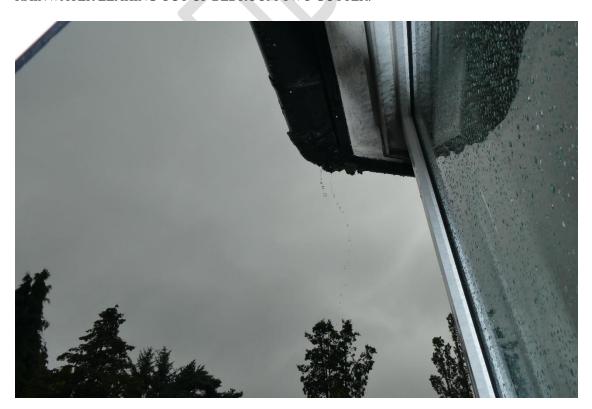


8.00 RAINWATER GOODS

RAINWATER LEAKING OUT OF BEDROOM TWO GUTTER.



RAINWATER LEAKING OUT OF BEDROOM TWO GUTTER.





8.00 RAINWATER GOODS

LEAKAGE FROM THE GUTTER TO BEDROOM TWO IS DAMPENING THE BAY BRICKWORK.



FRONT DOWNPIPE CORRODING AT JOINT.





9.00 EXTERNAL SOIL, WASTE AND VENTILATION PIPEWORK

9.01 There are two SVP's; one serving the bathroom which extends through the covered area roof and stops close to the bathroom window and is capped with an air admittance valve (AAV). The second drops through the garage ceiling. It serves the ensuite and discharges to a pipe close to the garage doors.

9.02 We noted:

- We cannot confirm that the air admittance valve (AAV) to the bathroom pipe is an external valve; if not, it may malfunction. If problems occur, extend this pipe above the eaves and open vent it.
- The base to this pipe is still original cast iron. Cast iron bases leak and this should be inspected as part of the drain survey (see section 24.07).
- We could not determine where the ensuite pipe vents to.

9.03 We cannot confirm the condition of the base of any pipes.

BATHROOM PIPE IS SHORT AND VENTS VIA AN AAV.





10.00 EXTERNAL WALLS

10.01 The external walls to the original house (measured at the kitchen door) are approximately 265mm thick with internal plaster. This is classed as "solid construction".

10.02 The two skins of brickwork to the original house may be tied together with the header bricks which can be seen in the face of the exposed brickwork. We obviously cannot check any small cavity or the sufficiency of these tie bricks or whether they are simply "snap" headers and therefore, do not tie the two skins together.

10.03 The do not have lintel support to at least the outer leaf. This is common in properties of this age. Other than to the brickwork above the garage doors, we saw no signs of settlement.

10.04 The wall thickness to the outbuilding section of the utility is 230mm; again, this is "solid construction". This area is an original outbuilding and the glazed section of the utility is an infill.

10.05 The front wall of the glazed section of the utility is only single skin brickwork. We have commented upon damp penetration issues. These is no heating to this area. The area will be cold during the winter. General dampness will also always be an issue.

10.06 We measured the extension wall at the kitchen window and found the wall to be approximately 300mm with plaster. This is a modern cavity wall.

10.07 We have not opened up walls so cannot comment on how the brick/block leafs are tied together, the presence or condition of wall ties or frame ties, the condition of the cavity or presence or condition of insulation.

10.08 The ensuite walls may not be suitably insulated, and heat-loss and condensation issues may become apparent in the colder months.

10.09 Your solicitor should obtain the Building Regulations Compliance Certificate for the construction of the kitchen extension, "in-fill" utility area and ensuite bathroom extension (including planning certificate).

10.10 We noted:

Front elevation:

- No signs of movement to the bay.
- Delaminated render above the garage and also, signs of settlement. There is a lintel to the internal skin of brickwork. The render will need to be removed, a lintel inserted to the out BOE course, the bricks re-set and the render renewed.
- Surface delamination to the paint above garage door and in other areas. This is where several layers of paint are delaminating from the render. It may be difficult to mask this with decoration alone, and render repairs may be required.
- Damage to front corner above head height looks like impact damage, but is reasonably high.



10.00 EXTERNAL WALLS

Right-hand side elevation:

- Again, the surface paint is delaminating from the render.
- The air bricks are covered with gravel. The gravel should be cleared, and additional bricks inserted to enable an air flow to the sub-floor void subject to the downpipe leak.

Rear elevation:

- The brickwork is getting damp due to leakage from the bay gutter.
- No signs of movement to the bay.
- The hardstandings are too close to the DPC. Wherever less than 150mm, a gravel border should be inserted.
- One air brick is partly covered to the bay.

Left-hand side elevation:

- Within the covered area, leakage has damaged the brickwork above the kitchen window. This will be from the roof and possibly, the leak within the bathroom.
- Render has been renewed in the past. Above the utility and covered area, there are cracks which are indicative of the render drying too quick. This may have caused the render to delaminate. The cracks should be filled to stop rainwater ingress.

Garage:

- The side wall of the garage is being pushed out by the expansive forces of sulphate attack to the garage slab (see section 17.00).
- The internal face of the garage walls are badly damp damaged.

10.13 We saw no evidence of any historic or progressive subsidence to the walls.

Action: Carry out render repairs and repairs to delaminating surface; clear/increase air bricks; insert gravel border where necessary.



10.00 EXTERNAL WALLS

DELAMINATING RENDER AND SETTLEMENT ABOVE GARAGE DOORS.



DAMAGE TO RENDER AT FRONT CORNER.





10.00 EXTERNAL WALLS

COVERED AIR BRICKS TO THE SIDE.



HARDSTANDING TOO CLOSE TO DPC AND COVERED AIR BRICK TO THE REAR BAY.



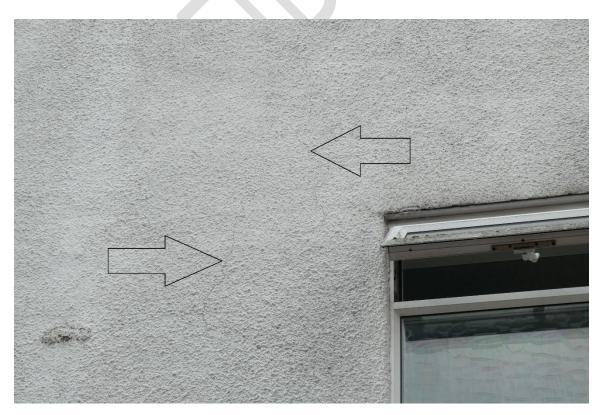


10.00 EXTERNAL WALLS

PREVIOUS RENDER REPAIRS/RENEWALS TO WALL ABOVE UTILITY/COVERED AREA.



SHRINKAGE CRACKING.



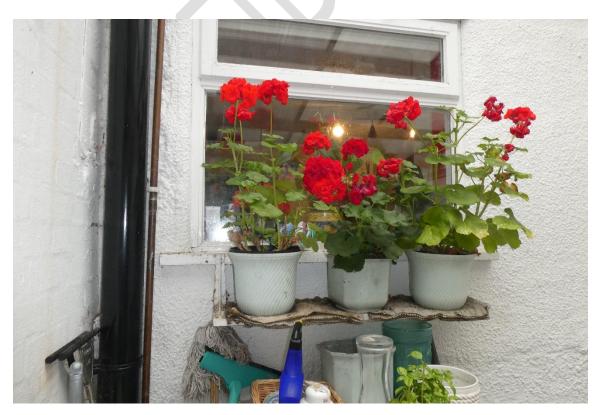


10.00 EXTERNAL WALLS

DAMAGE TO WALL DUE TO LEAKAGE THROUGH COVERED AREA.



ALL OF THIS WALL IS BECOMING DAMP.

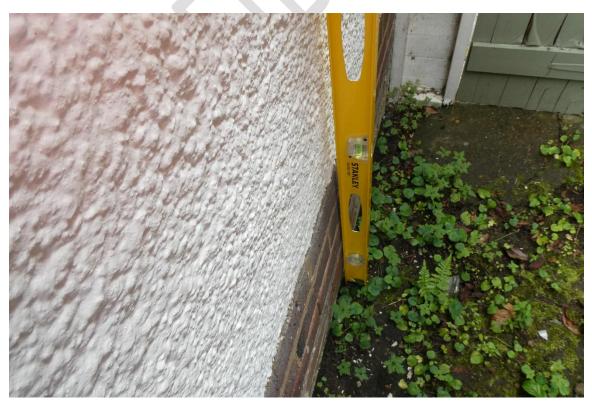




10.00 EXTERNAL WALLS

GARAGE WALL IS BEING PUSHED OUT BY SULPHATE ATTACK TO THE GARAGE SLAB.





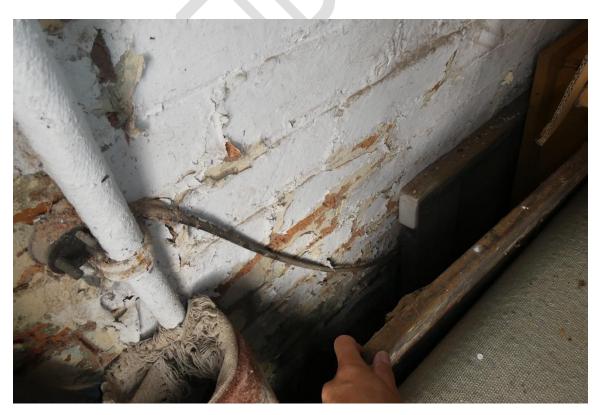


10.00 EXTERNAL WALLS

GARAGE WALLS ARE BADLY DAMP DAMAGED.



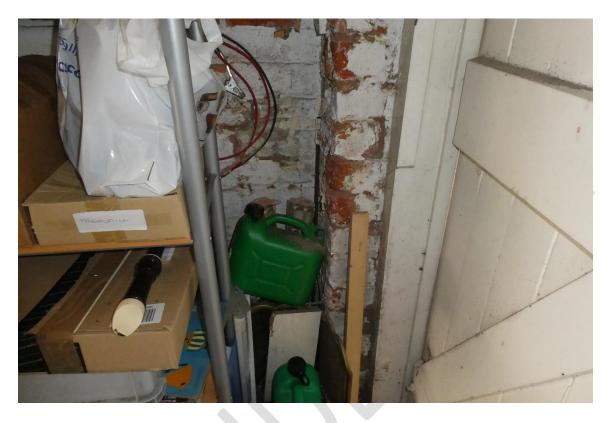
GARAGE WALLS ARE BADLY DAMP DAMAGED.





10.00 EXTERNAL WALLS

GARAGE WALLS ARE BADLY DAMP DAMAGED.



LINTEL TO INSIDE OF GARAGE DOOR OPENING.





11.00 DPC

- 11.01 The original DPC will be slate.
- 11.02 Our measurement for dampness and the visible dampness to several areas, indicates that the slate is breaking down.
- 11.03 Due to the intact bed-joint, we could not see the DPC to the extension.

12.00 WINDOWS

12.01 The windows are a mixture of UPVC with double-glazed units and timber with mixed glazing.

12.02 We noted:

- <u>Stairwell</u>: Positioned where a person could fall against it. The unit is not toughened; safety film should be applied.
- <u>WC</u>: Timber window with leaded glass. The frame is starting to rot through lack of decoration.
- <u>Dining room</u>: No issues, other than lubricant required to the right-hand main casement.
- <u>Kitchen</u>: Rear window is timber with double-glazed units. The glass within the units is not toughened; safety film should be applied.
- <u>Kitchen</u>: The side window is timber and due to leakage from the roof, the frame is rotting. It may require renewal.
- <u>Bathroom</u>: Failed main unit which requires renewal.
- Rear bedroom two: The casements open 410mm. To comply with escape regulations, they should achieve a clear opening of 450mm. The hinges should be replaced with egress hinges.
- Front bedroom four: The casement opens across the opening and stops half-way. To comply with escape regulations, it should achieve a clear opening of 450mm. The hinges should be replaced with egress hinges.
- 12.03 We saw no other issues.
- 12.04 Your solicitor should obtain the FENSA certificate for the windows (only applicable where installed after 2002).

Action: Install safety film and egress hinges where specified; replace bathroom unit; consider replacement to the kitchen window; repair/replace WC window.



12.00 WINDOWS

WC WINDOW.



ROT TO HEAD OF KITCHEN WINDOW.





12.00 WINDOWS

FAILED UNIT TO BATHROOM WINDOW.



BEDROOM FOUR STOP ACROSS OPENING.





13.00 EXTERNAL DOORS

- 13.01 The two front doors (one in porch) are timber. The doors operated satisfactorily.
- 13.02 The rear door from the lounge onto the patio are within the glazed screen. The unit was toughened. The door operated satisfactorily.
- 13.03 The side door from the kitchen is small glazed timber. The glazing is only single glazed. The door operated satisfactorily.
- 13.03 The doors from the utility to the front and rear are 2XG timber with single glazing. These doors and glazing are not particularly secure and could be easily broken into by a burglar. We cannot confirm that the glass is toughened. Safety film should be applied to each. The rear door is starting to rot. You should consider renewal.

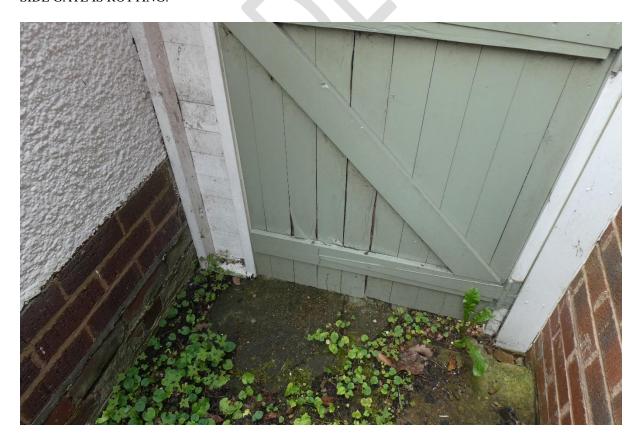
Action: Apply safety film to utility doors; consider upgrading doors due to security concerns.

14.00 EXTERNAL DECORATIONS

- 14.01 This involves render, eaves detailing, window and door frames.
- 14.02 The rear utility door and left-hand side gate are rotting.
- 14.03 The external decorations would benefit from renewal. You should obtain a quotation to repair render and timber where necessary, and redecorate the compete outside of the property.

Action: Obtain a quotation to redecorate the outside of the property.

SIDE GATE IS ROTTING.





15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

15.01 All of the partitions to the ground floor are solid partitions.

15.02 The first-floor partitions are stud partitions except the partition between the bedroom two and three, and bedroom one and four, as well as bedroom two and stairwell which are solid partitions.

15.03 Do not remove any partitions without fully determining its load-bearing capacity and introducing alternative support.

15.04 The removal of load-bearing partitions requires structural design calculations and building control approval.

15.05 The ceilings were all covered so we cannot confirm the specification. We could see lathe and plaster ceilings whilst in the loft.

15.06 We noted:

- Damage to garage ceiling beneath the ensuite is again, indicative of leakage and your solicitor should enquire to see if a repair has been carried out.
- Damp damage to walls to garage.
- Damp damage to low-level sections of walls to the utility.
- Slight shading to upper section of front wall to the utility leakage through flashing or parapet?
- Shading to utility ceiling beneath tiled area, may be dampness through tiles or could be poor decoration.
- Covered area is leaking, and this has affected the brickwork and kitchen window. We have recommended that the flashings are replaced.
- Damp damage to the kitchen ceiling beneath the bathroom and to the wall above the window. The vendor indicated that a leak to the bathroom had been repaired. Your solicitor should obtain the guarantee.
- Kitchen ceiling has a textured coating. These coatings can contain asbestos (see section 25.00).
- Visible dampness through the chimney flue to the dining room.
- Rucking to wallpaper/ceiling paper to dining room is non-structural.
- Visible damp to porch.
- Extensive damp damaged walls to bedroom four. We tested these with a damp meter, and they are relatively dry. Although this indicates that the valley repair has repaired the leakage, we would expect the walls and ceiling to bedroom four to require re-plastering whenever you redecorate.
- The wall behind the large wardrobe to bedroom one which is beneath the valley gutter, also may be damp damaged. Similar to bedroom four, re-plastering may be required.
- Damp damage and very high readings to right-hand cupboard within ensuite entrance area. The vendor indicated that a repair has been carried out. Your solicitor should obtain the guarantee.
- Loose ceiling paper to this area could be condensation or leakage through the roof finish/flashing. Again, the vendor indicated that a roof repair was scheduled to be carried out. Your solicitor should obtain the guarantee.



15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

- It appears that the left-hand alcove to bedroom one has been boarded to hide the chimney breast. Visually, the boarding is not level and if so, means that the wall is out of level. This may have implications for furniture fitting.
- Small amount of black mould to bedroom three (unusual as this bedroom appears to be a guest bedroom).
- Very small damp spots below bay ceiling to bedroom two.
- Small amount of cracking/rucking to side wall of bedroom three and bathroom stud partition too minor to identify as anything other than shrinkage.

15.07 We did not see anything else of note.

15.08 Please be aware that the property has not been redecorated for a number of years, and there will most probably be delaminated plaster. This delamination is not always apparent, and you should be aware that plaster may fall away when disturbed. There is obviously a time and cost element associated with this and you should assume that this is part of purchasing an older property.

15.09 To the walls and ceiling surfaces that we could see, we did not see any signs of progressive or historic settlement or subsidence.

DAMAGE TO GARAGE CEILING.





15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

DAMP DAMAGE TO UTILITY WALL.



DAMP DAMAGE TO KITCHEN WALL WITHIN UTILITY.





15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

DAMP STAINING BELOW PARAPET WALL TO UTILITY.



SHADING TO UTILITY CEILING. IS IT DAMP OR POOR REDECORATION?



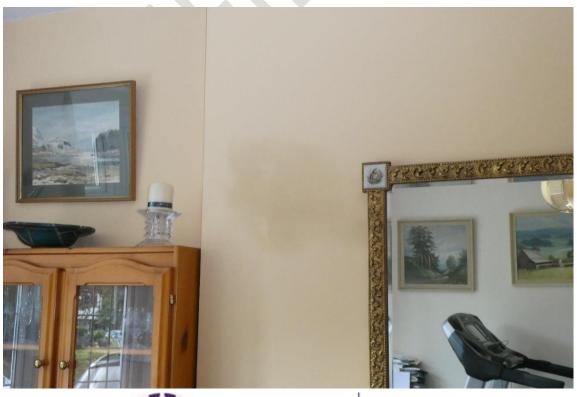


15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

DAMP THROUGH KITCHEN CEILING.



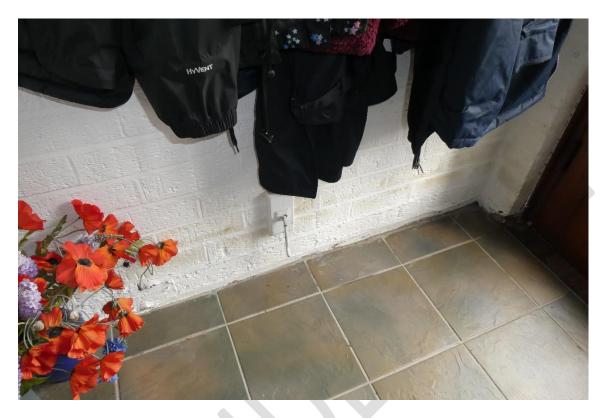
DAMP THROUGH DINING ROOM CHIMNEY BREAST.





15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

DAMP AT LOW LEVEL TO PORCH.



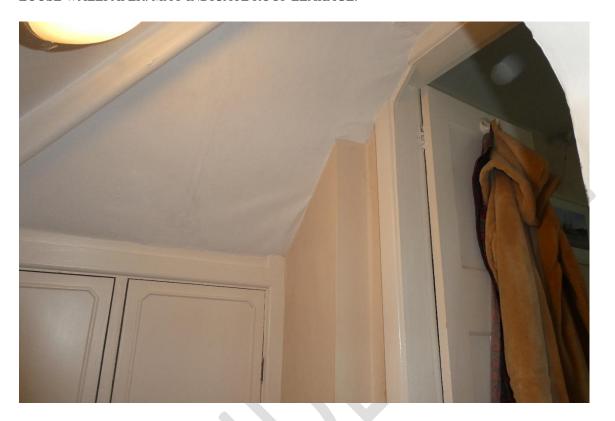
DAMP THROUGH BEDROOM FOUR IS RELATIVELY DRY.



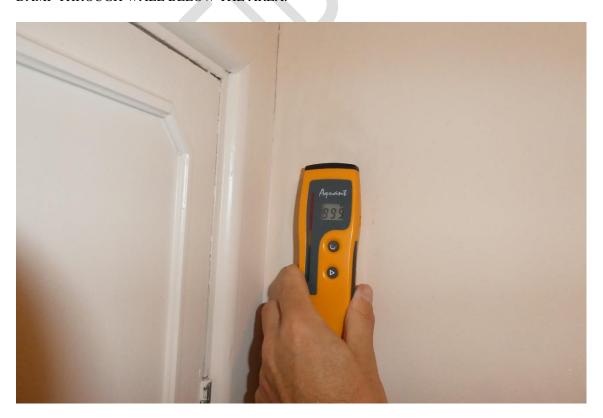


15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

LOOSE WALLPAPER. MAY INDICATE ROOF LEAKAGE.



DAMP THROUGH WALL BELOW THE AREA.



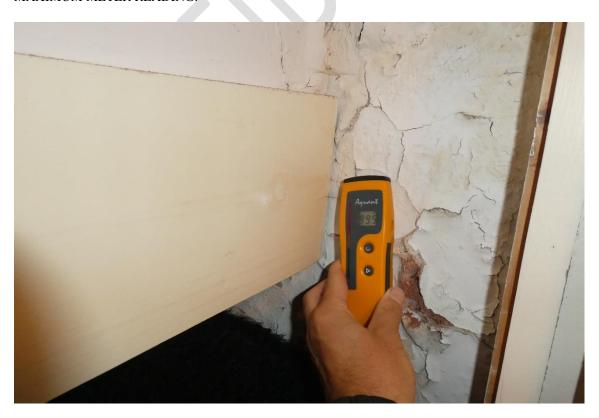


15.00 INTERNAL WALLS, PARTITIONS & CEILINGS

INSIDE OF THE CUPBOARD IS DAMP DAMAGED.



MAXIMUM METER READING.





16.00 FIREPLACES, FLUES AND CHIMNEYBREASTS

16.01 The chimney breast within the kitchen has been removed. We saw no evidence to indicate that support had been introduced, but we saw no evidence of settlement. Your solicitor should enquire to see if there is a Building Regulations Compliance Certificate for the removal of sections of the breast.

16.02 The breast within the dining room and each bedroom have sealed flues. Each sealed flue should have an air grill inserted into them. This will require one in the external part of bedroom two breast.

16.03 If after venting the flues the visible dampness to the breasts remains, the breasts will need sealing with foil backed or vapour control plasterboard or similar.

16.04 Do not use the gas fire to the lounge without a Gas Safe inspection.

17.00 FLOORS

17.01 All of the floors apart from the garage, were covered with carpets, coverings and boards and we were unable to inspect them, our comments are therefore based on what could be determine through coverings or from lifting the corners of carpets. We cannot confirm that the covered structural elements of the floors are free of defects.

17.02 The ground floor of the property appears to be:

<u>Solid, ground-bearing construction</u>: WC, porch, garage and kitchen extension. <u>Suspended timber</u>: all other areas.

17.03 The upper floor to the property is suspended timber.

17.04 The utility floor is covered in ceramic tiles. We cannot confirm that it is modern construction or an upgrade of what was in place prior to conversion to a utility.

17.05 We noted excessive movement to the hall floor which felt like rotten joists. We have discussed this with you.

17.06 We have commented upon air bricks.

17.07 The garage slab is showing classic signs of sulphate attack and the expansion forces are affecting the side wall of the garage. Usually, we would recommend a sulphate test, but in this instance, we are confident that the defect is present, and we recommend that floor slab is replaced in its entirety. A quotation should be obtained.

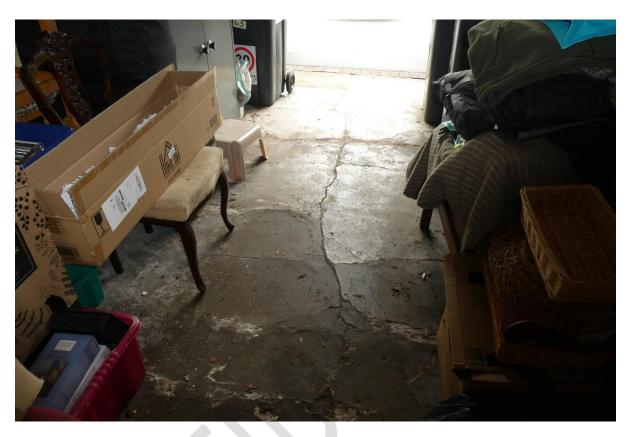
17.08 We cannot comment further.

Action: Replace garage floor slab.



17.00 FLOORS

SULPHATE ATTACK.







18.00 CELLAR

18.01 None and due to lack of access, we were unable to inspect the floor voids.

19.00 DAMP

19.01 We took measurements to the low-level section of the ground floor walls wherever they were free of fixed units, sanitaryware or drylining (kitchen extension). We noted:

<u>Dining room</u>: High damp readings to base of chimney and visible dampness through

chimney flue.

Hall: High damp readings to right-hand side wall (location of movement to the floor)

and front wall.

WC: High damp readings to porch wall.

<u>Porch</u>: High damp readings and visible dampness to WC wall.

Dining room wall registered medium damp readings.

Rear Lounge: High damp readings all along side wall including chimney breast (wallpaper is

delaminating adjacent/behind the TV).

Kitchen: We could not measure due to fitted units. The extension is drylined which we

cannot measure through.

Utility: Visible dampness behind fridge/freezer and to the kitchen wall. Possible

penetrating damp at higher level.

Garage: High readings throughout and damp damaged brickwork particularly to the front

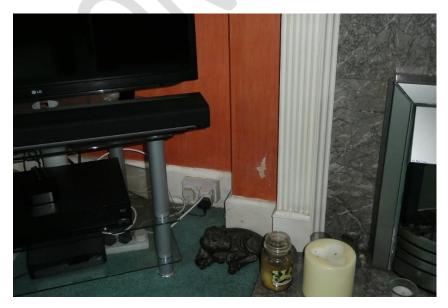
and side.

19.02 You have arranged for a survey/quotation from a Property Care Association (PCA) affiliated timber and damp-proofing company.

19.03 We have commented upon the dampness through the chimneys and roof finish/parapet.

Action: Arrange for a survey/quotation from a timber and damp-proofing company.

DAMP AFFECTING THE WALLPAPER TO THE DINING ROOM.





20.00 WOODBORING BEETLE AND ROT

- 20.01 We have commented upon the joists to the hallway.
- 20.02 We also noted that the stair treads creak and the stairs are against the side wall of the hall which registered damp.
- 20.03 Rot was noted to side gate, and timber window frames and the fascias are starting to deteriorate.
- 20.04 Within the roof space, where we could closely inspect, we did not see anything of concern.
- 20.05 We reiterate, that we could not inspect the floor void nor areas of the remaining roof structures such as the main roof gable dormers, utility and garage.
- 20.06 The PCA affiliated timber and damp-proofing company should inspect for these issues.

21.00 INTERNAL FINISHES

- 21.01 All in clean condition.
- 21.02 We assume that upon your possession, you will redecorate.
- 21.03 Please note comments regarding losing plaster.
- 21.04 You should also be aware that existing paint finishes beneath the current paint may contain lead and suitable precautions should be taken to avoid inhalation of dust during surface preparation of existing paintwork.

22.00 INTERNAL JOINERY

- 22.01 Stairs: Timber we have commented upon creaking treads.
- 22.02 Internal Doors: Original panelled we saw no issues other than bedroom four needs easing.
- 22.03 Skirtings and Architraves softwood large section.
- 22.04 Kitchen Units: Modern style. We saw no obvious issues.

23.00 SANITARYWARE

- 23.01 The showers are supplied with hot water from the hot water cistern.
- 23.02 We tested the WCs and they operated satisfactory.
- 23.03 We have commented upon the leaks that the vendor has indicated have been repaired. We cannot confirm this as fact. It appears that there was leakage from the bathroom and may be leakage from the ensuite into the garage. Your solicitor should obtain the guarantees.



24.00 SERVICES

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

24.02 Internal Wastes: Where visible these are generally plastic.

24.03 Plumbing Installation:

Where visible, the pipe work is copper.

The incoming water pipe and stop-tap are located in boxing to the rear of the kitchen. The incoming main is original lead. The lead pipe should be replaced in MDPE. Please be aware this will require disturbance of the drive. The internal stop tap should be made accessible and a "sure-stop" valve attached to the pipe. A quotation should be obtained as this replacement may be expensive.

Hot water is supplied to the cistern in the bathroom cupboard from the central heating boiler. We could not see the cistern which is hidden in the base of the bathroom cupboard. Hot water was in the system on the day of the inspection.

24.04 Heating Installation and Boiler:

There is a Worcester Bosch Greenstar 24 Ri conventional (regular) boiler to the utility.

The installation does not appear to have been carried out by a Worcester Bosch approved installer (not a statutory requirement) and the installation does not include a magnetic system clean. The lack of this system clean will invalidate the manufacturer's warranty.

The external thermostat is NEST.

The boiler is 24Kw. This may not have spare capacity should you wish to extend the property. The boiler operated for central heating demand.

The bedrooms have single panel radiators. Although these are large radiators, we cannot confirm that they are sized for the rooms.

We recommend that the boiler and radiator installation are safety checked by a Gas Safe Engineer.

Your solicitor should obtain the Building Regulations Compliance Certificate and warranty agreements/guarantees for the boiler.

24.05 Gas Installation:

The gas meter is in the garage. The electrical earth bonding is in place.

We recommend that the installation is inspected by a Gas Safe Engineer.

24.06 Electrical Installation:

The consumer unit is in the garage. The unit has RCD protection. We noted that the hot water cistern is not covered by RCD.

Other than the general age of the installation which we have discussed with you and the hot water/RCD, we did not see any other obvious issues with the electrical installation, but 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.

The Electrical Safety Council recommends that installations are checked prior to the purchase of a property.

There are no extractor fans to the WC nor kitchen. One should be installed to each.



24.00 SERVICES

24.07 Drainage Installation:

24.07.01 Apart from one chamber to the utility, we could not find any other inspection chambers to the property. This is relatively common to older properties.

24.07.02 We lifted this chamber cover and the drains run to the rear. There was a strong sewer smell.

24.07.03 On our first visit, it was raining heavily, and the front left-hand gulley was blocked and nearly overflowing. This will need clearing.

24.07.04 All of the drains are original.

24.07.05 It is important to ascertain the condition of the drains prior to purchasing the property. 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.

24.07.06 We cannot comment further upon the drainage.

Action: Replace incoming water main (may be expensive); inspect central heating/gas and electrics; install mechanical extraction; CCTV survey drains.

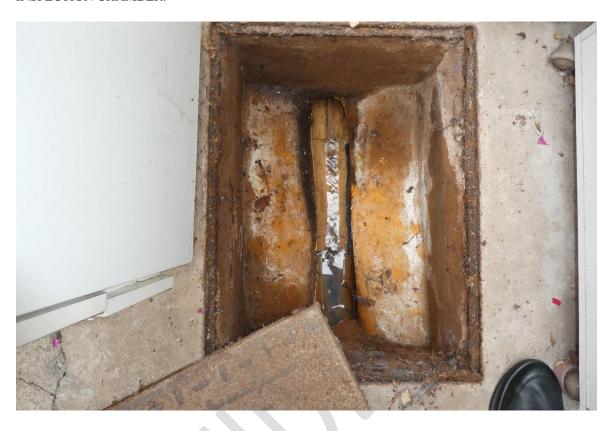
LEAD WATER MAIN.





24.00 SERVICES

INSPECTION CHAMBER.



GULLEY FULL OF WATER.





25.00 ASBESTOS

25.01 We have not carried out an asbestos survey. Where visible, we have commented on 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 The kitchen ceiling is covered by a textured surface. Traditional artex can contain asbestos. No testing was carried out and we recommend that should you wish to remove the material, you to either test the material or unibond and skim it as opposed to stripping it.

25.03 We could not identify the soffit boards particularly to the utility. Soffit boards are commonly formed with board that contains asbestos.

25.04 The shelf beneath the gas meter may be asbestos.

25.05 We saw nothing else of note.

26.00 FIRE PROTECTION AND MEANS OF ESCAPE

26.01 The means of escape would be via the staircase and front entrance door.

26.02 There is a NEST detector to the hall and battery detection to the landing. We have not tested the detection.

26.03 We recommend that interlinked long-life battery or mains operated smoke/fire detectors are installed to the kitchen (with heat detection), the utility, rear lounge and landing.

26.04 Carbon Monoxide detectors should be fitted adjacent to the gas fire and central heating boiler.

26.05 All holes to the garage sealing should be sealed with intumescent foam.

Action: Fit smoke/fire detection; fit CO detection; seal holes to garage ceiling.

27.00 NOISE SEPARATION

27.01 This is a detached property.

27.02 The only upgrade to reduce noise transference are the double-glazed units.

28.00 GROUNDS AND BOUNDARIES

28.01 The front garden is laid to mainly a driveway.

28.02 Since 1st October 2008, unless permeable paving is used, planning approval is required to pave front driveways. Your solicitor should enquire to see if this approval is in place.

28.03 The rear garden has a patio and lawn and planted areas beyond.

28.04 Large tree roots are within the lawn.

28.05 Fences are on the rear boundaries.

28.06 The front and rear are in good condition.

29.00 EXTERNAL BUILDINGS AND CONSERVATORIES

29.01 We have commented upon the garage within the report.



30.00 LEGAL MATTERS

30.01 Obtain the statutory approvals/final certificates (Building Regulations Compliance Certificate and planning approval where appropriate) for the:

- Construction of the rear extension (planning approval may not have been required)
- Construction of utility in-fill area.
- Introduction of central heating boiler (Building Control Compliance Certificate).
- Removal of kitchen chimney breast (Building Control Compliance Certificate).
- Front driveway (planning permission).

30.02 Obtain guarantees for the following and transfer guarantees into purchaser's name so that any issues that manifest themselves will be dealt with by the contractor for the purchaser:

- Central heating boiler.
- Repair to leak from bathroom which has affected the kitchen.
- Repair to leak from bathroom and possibly roof which has affected the ensuite cupboard.
- Repair to leak from ensuite into garage.
- Valley repair above bedroom one and four.
- UPVC windows (may be too old).

30.03 Check FENSA Certificates for the UPVC windows.

30.04 Obtain service/inspection/warranty certificates for the central heating boiler.

30.05 Obtain any certificates in relation to electric inspections.

30.06 Is there a drainage plan in existence which will identify the location of drains, if any shared drainage (water board responsibility) crosses the property. Is the system separate or combine?



31.00 CONCLUSION

31.01 ******* offers you an extended detached property located close to local amenities in Harborne as well as Birmingham City centre.

Our inspection has identified several areas of plumbing and roof leakage which have been addressed or are in the process of being repaired. Your solicitor should ensure that guarantees are in place for you to call upon should the need arise.

The leakage to the valley has caused damage to the walls in bedroom four and possibly, bedroom one and we have advised you that plastering will be required to these areas.

With regards to the general condition of the property, there are elements that are reaching the end of their serviceable life and these will need replacing within the coming years. For example, the roof finish is original which means that the tiles are beyond the expected lifespan of a clay tile. Usually, we recommend replacement of these old roof tiles, but the tiles here still have mortar torching on the battens, and presently, this is intact. This means that the risk of penetrating rain and snow is reduced, so in this instance, we have recommended that you budget for renewal in the future. We would expect this renewal to be required within the next ten years.

The bays are in need of renewal shortly, and as part of this renewal the rainwater installation to the scaffolded areas should be replaced.

Whilst the scaffold is in place for the main roof tile renewal, the complete rainwater installation should be renewed.

Within the roof space, we have recommended strengthening and restraining works. These are straight-forward, inexpensive operations and can be carried out when you occupy the property.

We found a reasonable amount of dampness and this can be clearly seen to the utility, porch and garage. We also identified potential rotten joists to the hall, and you are arranging for an inspection by a specialist damp company.

Likewise, we have advised you to arrange for an inspection of the electrics, as the installation appears aged.

Lastly, the garage floor slab is displaying clear signs of sulphate attack and we have recommended that the floor is replaced.

The other issues that we found are what we would expect to find in a property of this age, and we would deem them to be general maintenance issues.

We recommend that the full impact and costs of the issues are assessed, and you calculate these prior to proceeding with the purchase.



31.00 CONCLUSION

Within the report, we have recommended certain works to address particular issues and these are listed in the report and include amongst others:

- Obtain a quotation to re-roof the original tiled areas on modern membrane, new battens and ventilators.
- Remove saplings.
- Budget for renewal of bays (required in the near future).
- Monitor and budget for renewal of utility lead flashing.
- Renew covered area flashing.
- Budget for renewal of ensuite waney edge boards to walls.
- Prop purlins.
- Restrain gables.
- Insulate loft floor and water pipes.
- Insert fire-rated hatch.
- Reduce height of side stack.
- Check brick joints.
- Apply flaunching to top of stacks.
- Place suitable spigots upon open pots.
- Re-bed loose blocks to rear patio wall.
- Replace rainwater installation as specified budget for future complete renewal.
- Carry out render repairs and repairs to delaminating surface.
- Clear/increase air bricks.
- Insert gravel border where necessary.
- Install safety film and egress hinges where specified.
- Replace bathroom unit.
- Consider replacement to the kitchen window.
- Repair/replace WC window.
- Apply safety film to utility doors; consider upgrading doors due to security concerns.
- Obtain a quotation to redecorate the outside of the property.
- Replace garage floor slab.
- Arrange for a survey/quotation from a timber and damp-proofing company.
- Replace incoming water main (may be expensive).
- Inspect central heating/gas and electrics.
- Install mechanical extraction.
- CCTV survey drains.
- Fit smoke/fire detection.
- Fit CO detection.
- Seal holes to garage ceiling.



31.00 CONCLUSION

We strongly recommend that you obtain quotations for all of the works and further investigations listed 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.

- 31.02 "Serious Defects" (can affect the structural integrity of the building) sulphate attack to garage slab.
- 31.03 "Essential Repairs" (can lead to serious defects) leaking gutter and downpipes; leaking covered area roof; address damp issues especially where affecting floor joists; fire detection upgrades.
- 31.04 All other matters raised fall with the "other repairs" category and will need to be addressed in the near future.
- 31.05 Before you exchange contracts to purchase the property, quotations for the all repairs should be obtained; further investigations and surveys recommended should be carried out.

Further Investigation/Surveys

- 31.06 Commission a Gas Safe survey on the gas/central heating installation.
- 31.07 Commission a safety test on the electrical installation by a NICEIC electrician.
- 31.08 Carry out a full survey on the drains to ascertain condition clear blockage to front.
- 31.09 Request a full timber and damp-proofing survey.



32.00 ADDITIONAL PHOTOGRAPHS

All photographs are within the report.





Survey carried out and report prepared and compiled by:

Midland Property Surveys Limited 132 Knightlow Road, Harborne, Birmingham, B17 8QA.



For and on behalf of Midland Property Surveys Limited, Warren Gill MRICS Chartered Building Surveyor.

www.mpsurveys.co.uk

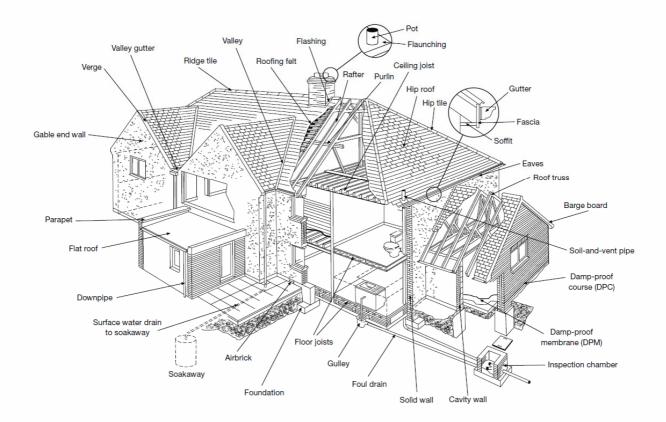
Regulated by RICS

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 - MIDLAND PROPERTY SURVEYS LIMITED

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.

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".

Bitumen Black, sticky substance, related to asphalt. Used

in scalants, 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.

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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.

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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.

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Engineering Brick	Particularly strong and dense type of brick,
	sometimes used as a damp-proof course. Usually
	blue or red in colour.
Fan Assisted Flues	Similar to "Balanced Flue" but with fan assistance
	to move air or gases.
Fibreboard	Cheap, lightweight board material of little
	strength, used in ceilings or as insulation to attics.
Fillet	Mortar used to seal the junction between two
	surfaces, ie between a slate roof and a brick
	chimney stack.
Elashing	Thin sheet material used to prevent leakage at a
	roof joint. Normally metal (lead, zinc or copper).
Flaunching	Contoured cement around the base of chimney
	pots, to secure the pot and to throw off rain.
Flue	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-
\Q_\\	essential for high output gas appliances such as
	boilers. May also be manufactured from clay and
	built into the flue.
Foundations	Normally concrete, laid underground as a
0/0	structural base to a wall; in older buildings may
	be brick or stone.
	A depression imprinted in the upper surface of a
1108	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
M,	at the top). Can also be on the front of a roof
	(again, triangular).
Ground Heave	Swelling of clay subsoil due to absorption of
	moisture; can cause an upward movement in
	foundations.
Gulley	An opening into a drain, normally at ground level,
	The specime with a diaminary at 8 outly levely

placed to receive water, etc from downpipes and

waste pipes.

GLOSSARY – MIDLAND PROPERTY SURVEYS LIMITED

Haunching	See "Benching". Also term used to describe the
	support to an underground drain.
Hip	The external junction between two intersecting roof slopes.
	· our stopes
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.
Jamb	Side part of a doorway or window (see also
	"reveals").
loist	Horizontal structural timber used in flat roof,
10131	ceiling and floor construction. Occasionally also
	metal.
	meta.
Landslip	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.
10/	
Lintel	Horizontal structural beam of timber, stone, steel
	or concrete placed over window or door
	openings.
Longhorn Beetle	A serious insect pest mainly confined to the
	extreme south east of England, which can totally
	destroy the structural strength of wood.
IDC	Liquid Petroleum Gas (or Propane). Available to
	serve gas appliances in areas without mains gas.
	Requires a storage tank.
NA CHANGE	Traditionally a mixture of lime and sand. Modern
WIGHTH	mortar is a mixture of cement and sand. Used for
	bonding brickwork, etc.
	worraming serioration of the
Mullion	Vertical bar dividing individual lights in a window.
	Stout post supporting a staircase handrail at top
Newel	and bottom. Also, the central pillar of a winding
	or spiral staircase.
	pro

GLOSSARY – MIDLAND PROPERTY SURVEYS LIMITED

Oversite	Rough concrete below timber ground floors.
Parapet	Low wall along the edge of a flat roof, balcony, etc.
Pier	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.
Powder Post Beetle	A relatively uncommon pest which can, if untreated, cause widespread damage to structural timbers.
Purlin	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.

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The thrust of a badly restrained roof structure

Roof Spread

	(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
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
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.
Soaker	Sheet metal (usually lead, zinc or copper) at the junction of a roof with a vertical surface of a chimney stack, adjoining wall, etc. Associated with flashings which should overlay soakers.
Soffit	The under-surface of eaves, balcony, arch, etc.
Solid Fuel	Heating fuel, normally coal, coke or one of a variety of proprietary fuels.
Spandrel	Space above and to the sides of an arch.
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.

GLOSSARY - MIDLAND PROPERTY SURVEYS LIMITED

Sulphate Attack

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.

Valley Gutter Herizontal or sloping gutter, usually lead or tile

lined, at the internal intersection between two

roof slopes.

VentilationNecessary 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.

Verge Board Timber, sometimes decorative, placed at the

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

Wainscot Wood panelling or boarding on the lower part of

an internal wall.

GLOSSARY - MIDLAND PROPERTY SURVEYS LIMITED

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

Colloquial_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.