JOB REFERENCE: xxxxxxxxxxx

RESIDENTIAL BUILDING SURVEY

xxxxxxx
xxxxxxx
Surrey,
KT4 xxxx.

FOR

XXXXXXXX

Prepared by:

INDEPENDENT CHARTERED SURVEYORS

Marketing by:
www.1stAssociated.co.uk
0800 298 5424

CONTENTS

INTRODUCTION

Firstly, may we thank you for your instructions of xxxxxxx we have now undertaken a Building Survey (formerly known as a Structural Survey) of the aforementioned property. This Survey was carried out on xxxxxxx.

The Building Survey takes the following format; there is an introductory section (which you are currently reading), which includes a synopsis of the building, and a summary of our findings.

We then go through a detailed examination of the property starting with the external areas working from the top of the property down, followed by the internal areas and the buildings services. We conclude with the section for your Legal Advisor and also attach some general information on the property market.

We are aware that a report of this size is somewhat daunting and almost off-putting to the reader because of this. We would stress that the purchase of a property is usually one of the largest financial outlays made (particularly when you consider the interest you pay as well).

We recommend that you set aside time to read the report in full, consider the comments, make notes of any areas which you wish to discuss further and phone us.

We obviously expect you to read the entire report but we would suggest that you initially look at the summary, which refers to various sections in the report, which we recommend you read first so that you get a general feel for the way the report is written.

As part of our service we are more than happy to talk through the survey as many times as you wish until you are completely happy to make a decision. Ultimately, the decision to purchase the property is yours but we will do our best to offer advice to make the decision as easy as possible.

REPORT FORMAT

To help you understand our Report we utilise various techniques and different styles and types of text, these are as follows:

GENERAL/HISTORICAL INFORMATION

This has been given in the survey where it is considered it will aid understanding of the issues, or be of interest. This is shown in "italics" for clarity.

TECHNICAL TERMS DEFINED

Throughout the Report, we have endeavoured to define any technical terms used. This is shown in "Courier New" typeface for clarity.

A PICTURE IS WORTH A THOUSAND WORDS

We utilise photographs and sketches to illustrate issues or features. In some photographs a pencil has been used to highlight a specific area. The sketches are not 100% technically accurate; we certainly would not expect you to carry out work based upon the sketches alone.

ORIENTATION

Any reference to left or right is taken from the front of the property, including observations to the rear, which you may not be able to physically see from the front of the property.

ACTION REQUIRED AND RECOMMENDATIONS

We have used the term **ACTION REQUIRED** where we believe that there are items that you should carry out action upon or negotiate upon prior to purchasing the property.

Where a problem is identified, we will do our best to offer a solution. However, with most building issues, there are usually many ways to resolve them dependent upon cost, time available and the length of time you wish the repair/replacement to last.

SYNOPSIS

SITUATION AND DESCRIPTION

This is a two storey semi-detached property within a residential area of similar properties. The property has had a conservatory extension to the rear right hand side.

To the front of the property the garden has been given over for parking and to the rear is a large garden with a possibly unusable detached garage to the left hand side.

We believe that the property was built in the 1930's. During this time there was a rationing of materials and limited skilled labour available which can mean that sometimes there are unusual constructions hidden beneath what appears to be a typical construction. If the exact age of the property interests you your Legal Advisor may be able to find out more information from the Deeds.

Putting Life into Perspective!

Some of the things that were happening around the time the property was built:

1928	Alexander Fleming develops penicillin
1931	The Highway Code issued
1933	Assassination attempt on FDR
1936	The RMS Queen Mary left Southampton on her maiden voyage to New York
1939-1945	World War II (6 June 1944 D-Day)
1941	The National Fire Service established
1943	William Morris established the Nuffield Foundation

EXTERNAL PHOTOGRAPHS

(All directions given as you face the front of the property)

Front Elevation

Rear View

Left hand view

Street view

Front garden/ parking area

Rear Garden

Conservatory (rear right)

ACCOMMODATION AND FACILITIES

(All directions given as you face the front of the property)

Ground Floor

The ground floor accommodation consists of:

1) Entrance Hallway
2) Through Lounge (right)
3) Kitchen (rear left)
4) W.C.
5) Conservatory

First Floor

The first floor accommodation consists of:

1) Master Bedroom (front right)
2) Double Bedroom (rear right)
3) Single Bedroom (rear left)
4) Bathroom (front left)
5) W.C.

Outside Areas

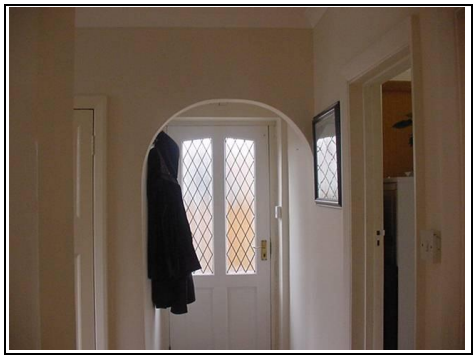
The front garden has been given over to parking and there is a garage to the left hand side of the property although we would describe this as unusable. The rear garden is a good size that includes a patio area.

Finally, all these details need to be checked and confirmed by your Legal Advisor.

INTERNAL PHOTOGRAPHS

The following photos are of the internal of the property to help you recall what it looked like and the general ambience (or lack of). We have not necessarily taken photographs of each and every room.

Ground Floor



Entrance Hallway

Through Lounge

Kitchen

Conservatory

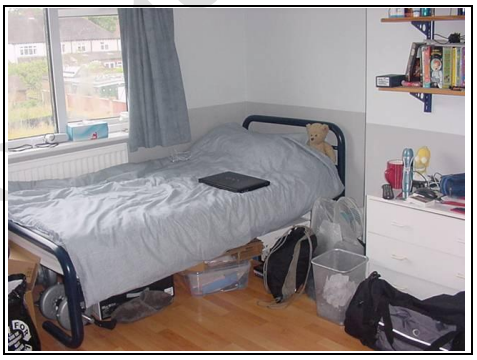
W.C.

Stairs/half landing

First Floor

Master Bedroom (front right)

Bedroom (rear left)



Bedroom (rear right)

Bathroom (front left)

W.C.

SUMMARY OF CONSTRUCTION

External

Chimneys:	Brick chimneys
Main Roof:	Hipped, pitched clad with clay nibbed tiles
Main Roof Structure:	Cut timber roof
Gutters and Downpipes:	Cast iron and plastic
Soil and Vent Pipe:	Cast iron and Plastic
Walls:	Flemish Bond brickwork(assumed) and painted render
Fascias and Soffits:	Painted timber
Windows and Doors:	Plastic double glazed and timber single glazed

Internal

Ceilings:		Lath and plaster (assumed)
Walls:		Predominantly solid (assumed)
Floors:	Ground Floor:	Suspended timber floor (assumed)
	First Floor:	Joist and floorboards with embedded timbers (assumed)

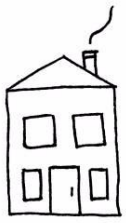
Services

We believe that the property has a mains water supply, mains drainage, electricity and gas (all assumed). The wall mounted boiler is a Potterton Prima and is located in the airing cupboard and the electrics, circa 1980/1990's are located under the stairs.

The above terms are explained in full in the main body of the Report.

We have used the term 'assumed' as we have not opened up the structure.

EXECUTIVE SUMMARY



Summaries are not ideal as they try to précis often quite complex subjects into a few paragraphs. This is particularly so in a summary about someone's future home when we are trying to second-guess what their priorities are, so it is important the Report is read in full.

It is inevitable with a report on a building of this nature that some of the issues we have focussed in on you may dismiss as irrelevant and some of the areas that we have decided are part of the 'character' of this property you may think are very important. We have taken in the region of 200 photographs during the course of this survey and many pages of notes, so if an issue has not been discussed that you are interested in or concerned about, please phone and talk to us before you purchase the property (or indeed commit to purchasing the property), as we will more than likely have noted it and be able to comment upon it; if we have not we will happily go back.

We have divided the Executive Summary into 'The Good', 'The Bad' and 'The Ugly', to help distinguish what in our mind are the main issues.

The Good

Survey reports often are full of only the faults and general 'doom and gloom', so we thought we would start with some positive comments on the property!

1) Older properties typically have more space than newer properties, both in the actual size of the rooms and the height of the rooms. The garden is certainly larger.

2) The property has good natural light helped by the bay windows.

3) The property is dated but has potential.

We are sure you can think of other things to add to this list.

The Bad

Problems / issues raised in the 'bad' section are usually solvable, but often need negotiation upon. However, a large number of them may sometimes put us off the property.

1.0) Chimneys

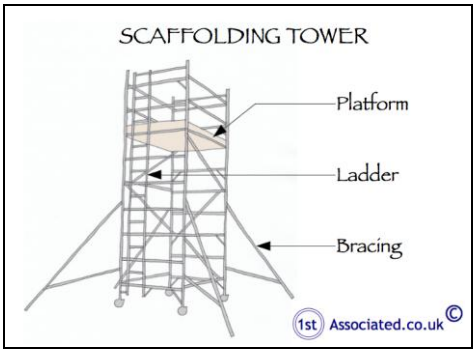
The chimneys need re-pointing ideally as soon as possible but at the latest the summer of 2014. The photographs below taken during our inspection show leaning to the chimney and the pointing required to them. There may also be rebuilding necessary although this looks unlikely at the moment. The longer you wait to carry out repairs the more likely this becomes.

Left hand chimney appears to have an inwards lean on it

Right chimney also needs the flashings repaired

ACTION REQUIRED: Re-point as soon as possible.

ANTICIPATED COST: This will require scaffolding and is likely to be in the region of £1,000-£3,000 (one thousand to three thousand pounds); please obtain quotations.



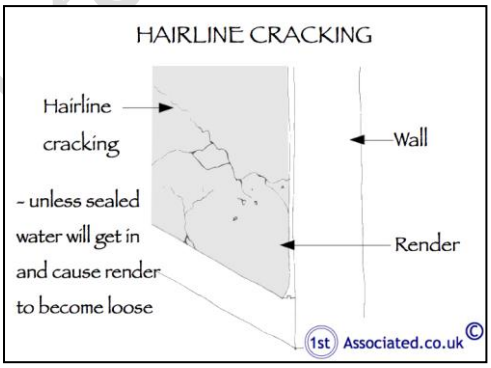
Please see the Chimneys Section of this Report.

2.0) **Painted to sell and older render**

The property has the original older style rendering. We tend to find that in this age of building there is hairline cracking to the render which in turn allows dampness through. We noted some yellow staining to the front of the property that may relate to the old colour paint work grinning through (coming through).

Older style Render

Older style render will always need maintenance. The problem is maintaining it regularly as often it can be forgotten about and then dampness gets in. The other problem is, when maintenance is needed, trying to match in the new render with the existing render.



Please see our adjoining sketch that shows the typical hairline cracks that you get in the property. These are very fine and do not show up in the photos.

We would also add that gutters should be checked for leaks as this can cause damage to the render.

Please see the Walls Section of this Report.

3.0) **Movement**

We can see to the rear of the property there has been movement. This does look to be longstanding. Nevertheless it is difficult to be one hundred per cent certain from a one off inspection and without any opening up of the structure. For example the render to the front of the property has been recently painted and may hide latent defects.

Different coloured mortar in an 'A' shaped pattern below the window indicates there has been movement

ACTION REQUIRED: Your Legal Advisor to check and confirm if the existing owner has made an insurance claim.

If you wish to be one hundred per cent safe and limit any possible liability then we recommend that you get the existing owner to place an insurance claim and that you see confirmation of this in writing. This way it will limit any future liability to the excess only. Then you can stay insured with the same insurer.

4.0) Misted Windows

The windows are misted over indicating that the sealed double glazed units have failed or that there could have been movement in the property as a whole.

ACTION REQUIRED: You may be able to put up with these for a while but ultimately you should budget for replacement.

Misted window

ANTICIPATED COST: From £4,000 (four thousand pounds) upwards depending upon the style and the quality that you choose; please obtain quotations.

Please see the Windows and Doors Section of this Report.

5.0) Air bricks acting as gutters

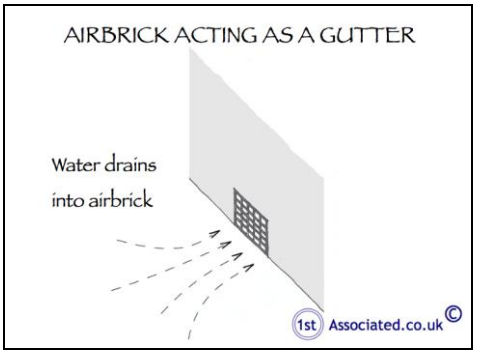
The airbricks need to be protected as some of them are acting as gutters and some of them are close to acting as gutters!

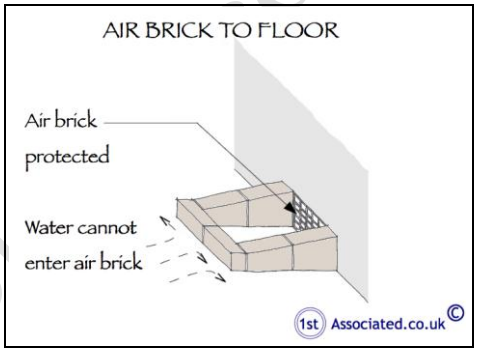
ACTION REQUIRED: Add protection to the air bricks as shown in the sketch below.

Air brick acting as a gutter

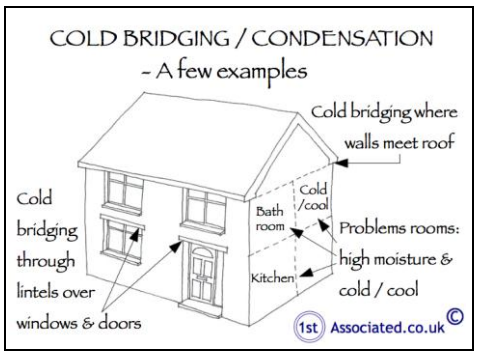
You will also need to open sections of the floor to the front and rear of the property to check the condition as dampness does encourage woodworm, dry rot and wet rot.

ANTICIPATED COST: Assuming there are no problems under the floor we would expect the cost to be in the hundreds of pounds. If problems are found under the floor then we would expect costs in the thousands of pounds. Although we think this is unlikely it is difficult to be one hundred per cent certain from this inspection; please obtain quotations.





6.0) Cold Bridging and condensation



In this era of property cold bridging can be a problem (please see our article within the appendices). Unfortunately due to a few areas we have seen in the building this is likely to be above average. The issues are, firstly, the lack of proper extract fans in the kitchen and the bathroom. This means condensation is more likely (as seen in the bathroom).

Also it looks as if concrete lintels are present. These cause cold spots that then cause the cold bridging and condensation.

ACTION REQUIRED: There is very little that you can do with the lintels without major work. We would recommend that larger humidity controlled extract fans are added.

ANTICIPATED COST: A few hundred pounds; please obtain quotations.

This extract fan needs replacing with a larger humidity controlled extract fan

Please see the Dampness Section of this Report.

7.0) Stairs and landing boards

The half landing on the stairs moves and there is also movement to the top floor indicating that the floor boards have not been put down properly.

ACTION REQUIRED: Extra securing and possibly strengthening of the boards is required underneath the half landing and landing areas.

ANTICIPATED COST: A few hundred pounds; please obtain quotations

8.0) Asbestos roof on the garage

There is an asbestos roof on the garage. This is partly covered in overgrown plants and so could be deteriorating underneath this.

ACTION REQUIRED: We always recommend the removal of asbestos roofs as legislation relating to it means it is getting harder to remove. It will also deteriorate with age. Asbestos also puts off many future purchasers and limits your market considerably.

Asbestos Roof

Please note we are not asbestos Surveyors. Our insurance requires us to recommend that you have a separate asbestos survey.

Please see the Other Matters Section of this Report.

9.0) Right hand neighbours

As you are aware we did not manage to speak to or check with the right hand neighbours about their overgrown garden. We were advised by other neighbours that they are busy doctors. We would personally check as they will be your direct neighbour and as this is a semi-detached house you will share the party wall with them.

Neighbours overgrown garden

10.0) Services

The Boiler

This is one of the older style wall mounted boilers. This is manufactured by Potterton and the model is a Prima

ACTION REQUIRED: Budget for replacement.

Old style Potterton boiler

ANTICIPATED COST: In the region of £3,500(three thousand, five hundred pounds). It is likely with a new boiler that there may be problems with the joints leaking in the existing pipework and radiators and so you need to allow for this. This in itself can run into thousands of pounds. The best thing to do is to power flush the system before you put it back into service; please obtain quotations.

The Electrics

The electrics are dated, circa 1980's/1990's.

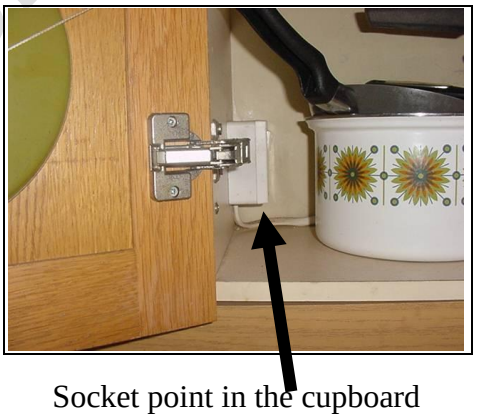
Dated electrics

ACTION REQUIRED: These should ideally be replaced. We would also recommend an Institute of Electrical Engineers standards (IEE) test and report be carried out by an NICEIC registered and approved electrical contractor or equivalent.

ANTICIPATED COST: £250 - £350(two hundred and fifty to three hundred and fifty pounds); please obtain quotations

Socket Points

We noted there are some unusual locations for some of the socket points in the kitchen i.e. in the cupboard. This indicates to us there may be DIY re-wiring. There may be other examples of this in other areas.



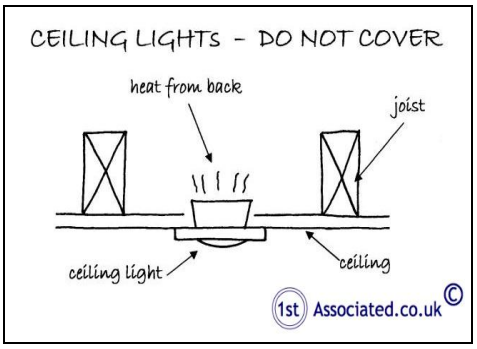
Socket point in the cupboard

ACTION REQUIRED: Have an IEE test and report as mentioned above and carry out all recommendations.

ANTICIPATED COST: This will be included in the costs above; please obtain quotations.

Ceiling Lights in the kitchen

Electric lights in this positon do give off heat and can cause fires.



Ceiling light

ACTION REQUIRED: Have an IEE test and report as mentioned above and carry out all recommendations.

ANTICIPATED COST: This will be included in the costs above; please obtain quotations.

Please see the Services Section of this Report.

Single panel radiators

This property has a lot of single panel radiators. These may not warm the property as most people would wish. With specific reference to the conservatory we feel you are likely to suffer from heat gain in the summer and heat loss during the winter. This can be a problem particularly where the heat fills the rest of the house. You can shut off this area.

Single panel radiator

ACTION REQUIRED: You may wish to add double panel convection radiators.

ANTICIPATED COST: £150 - £300 (one hundred and fifty to three hundred pounds) per radiator; please obtain quotations.

The Ugly

We normally put here things that we feel will be difficult to resolve and will need serious consideration.

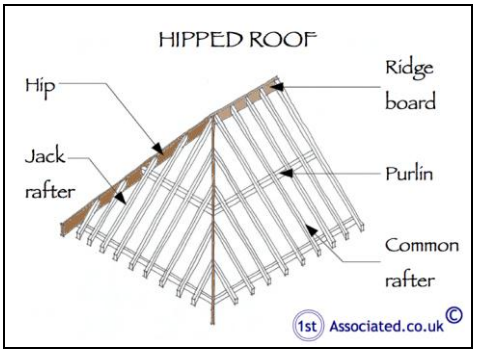
1.0) Hipped roof

The property has a pitched hipped roof that has no protective underlayer which would be included if it was constructed today. As such rainwater can get in; typically this will be wind driven rain and also snow. Over the years this has caused the nibs on the tiles to deteriorate which ultimately will mean a new roof is required.

There is a dip in the rear roof

Back of the tiles, some have been replaced and some are spalling.

Closer still this shows dampness coming through

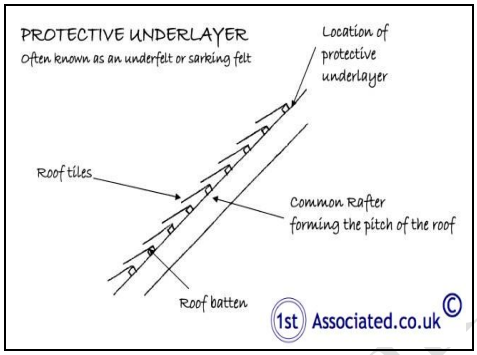


Spalling Defined

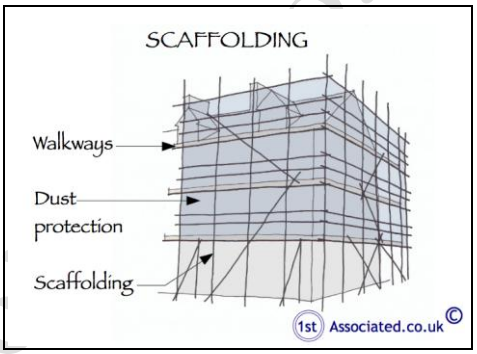
Spalling occurs to brick or stone when water penetrates the surface and via freezing and thawing starts to cause deterioration to the surface. This in turn allows further water penetration and the surface breaks up further. This ultimately can lead to water damage or structural damage to the area.

ACTION REQUIRED: We would recommend re-roofing in the next few years. It is difficult to give an exact time scale as to when as our weather is unpredictable and we seem to be getting highs and lows. For example, we have had a very dry spell followed by a very wet spell.

ANTICIPATED COST: New roofs are expensive as full scaffolding will be needed and will be in the region of £8,000 - £12,000(eight thousand to twelve thousand pounds). If you look in the adjoining sketch you will see that the protective underlayer is a sheet that goes between the tiles and the roof.



We have also included a sketch of the scaffolding as this can be very expensive. The scaffolding sketch is not a hundred per cent correct as you will typically be expected to have a roof on this over the top of a property when re-roofing; please obtain quotations.



Properties nearby that have been re-roofed

You can see this property has been re-roofed

A close up of this roof shows a mushroom vent indicating a new roof probably from the 1980's

As you are aware we spoke to the owner of a neighbouring property who was a builder/roofer and who was looking to re-roof his property in the not too distant future.

Please see the Roof Section of this Report.

Other Items

Moving on to more general information.

Maintenance

This type of property is relatively modern (i.e., less than one hundred years old) but nevertheless still requires on-going maintenance and repair and is suffering from the lack of a new roof which is an upgrade that we are seeing on most properties. A budget for such work must be allowed to ensure it is maintained in a good condition. This will prevent undue and unnecessary deterioration.

Services

Whilst we have carried out a visual inspection only of the services within the property and we would always recommend you have your own specific testing for each of the services

Electrics

These are dated and we would recommend an Institute of Electrical Engineers standards (IEE) test and report be carried out by an NICEIC registered and approved electrical contractor or equivalent, which is recommended whenever a property changes occupancy.

Heating

The boiler is dated and many would say on its last legs but it really does depend on how often and how frequently it has been serviced and if there is a service record. We recommend that the system be tested and overhauled ideally before exchange of contracts and that a regular maintenance contract be placed with an approved heating engineer.

Drainage

We did not lift the manholes but we ran the tap for 15 minutes without any build up or blockages. The only way to be 100% certain of the condition of the drains is to have a closed circuit TV camera report.

Water Supply

There is danger in older properties of having a lead water supply; we would recommend that you speak to the water company to ask them if they have carried out such replacement, as you will be re-piping much of the water used in the building it gives an ideal opportunity to also check for any remaining lead pipes.

ACTION REQUIRED - SERVICES:
We would reiterate that we recommend with regard to all services that you have an independent check by a specialist contractor.

DIY/Handyman Type Work

There are numerous other items that we would class as DIY or handyman type work such as redecorating to turn the property into your home and the general upgrading of the bathroom and the kitchen. We have detailed these and other issues within the main body of the report.

Purchase Price

We have not been asked to comment upon the purchase price in this instance, we have however referred you to sources of general information on the housing market within the Information on the Property Market Section, which can be found in the Appendices at the end of the Report.

Every Business Transaction has a Risk

Every business transaction has a risk, only you can assess whether that risk is acceptable to you and your circumstances. You should now read the main body of the Report paying particular attention to any "**ACTION REQUIRED**" points.

Estimates of Building Costs

Where we have offered an estimate of building costs please remember we are not experts in this area. We always recommend you obtain quotations for the large jobs before purchasing the property (preferably three quotes). The cost of building work has many variables such as the cost of labour and estimates can of course vary from area to area when giving a general indication of costs. For unskilled labour we currently use between £75 and £100 per day (the higher costs in the city areas) and for tradesmen we use between £100 and

£200 per day for an accredited, qualified, skilled tradesman. Other variations include the quality of materials used and how the work is carried out, for example off ladders or from scaffold.

If you obtain builders estimates that vary widely, we would advise the work is probably difficult or open to various interpretations and we would recommend a specification is prepared. It would usually be best to have work supervised if it is complex, both of which we can do if so required.

SUMMARY UPON REFLECTION

The Summary Upon Reflection is a second summary so to speak, which is carried out when we are doing the second or third draft a few days after the initial survey when we have had time to reflect upon our thoughts on the property. We would add the following in this instance:

We do believe a substantial discount should be obtained on this property as it is in below average condition. The cost of the work can be added up via our various recommendations. However do not forget the cost of the inconvenience which can be equal to the cost of the work.

We would refer you to our comments in the Executive Summary, 'Good', 'Bad' and 'Ugly' Section and ask that you re-read these.

As a general comment for any work required we would always recommend that you obtain at least three quotations for any work from a qualified, time served tradesperson or a competent registered building contractor prior to legal completion.

We would ask that you read the Report in full and contact us on any issues that you require further clarification on.

MORE ABOUT THE REPORT FORMAT

Just a few more comments about the Report format before you read the actual main body of the Report.

TENURE – FREEHOLD (OR AS GOOD AS)

We have assumed that the property is to be sold Freehold or Long leasehold, with no unusual or onerous clauses and that vacant possession will be available on completion. Your Legal Advisor should confirm that this is the case.

ESTATE AGENTS – FRIEND OR FOE?

It is important to remember that the estate agents are acting for the seller (usually known as the vendor) and not the purchaser and are therefore eager to sell the property (no sale – no fee!). We as your employed Independent Chartered Surveyor represent your interests only.

SOLICITOR/LEGAL ADVISOR

To carry out your legal work you can use a solicitor or a legal advisor. We have used both terms within the report.

TERMS OF ENGAGEMENT/LIMITATIONS

This report is being carried out under our terms of engagement for Building Surveys, as agreed to and signed by yourselves. If you have not seen or are not happy with the terms of engagement please phone immediately 0800 298 5424 or email the secretary from which this survey came from.

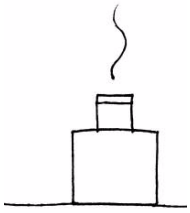
OUR AIM IS ONE HUNDRED PERCENT SATISFACTION

Our aim is for you to be completely happy with the service we provide, and we will try and help you in whatever way possible with your property purchase - just phone us.

THE DETAILED PART OF THE REPORT FOLLOWS, WORKING FROM THE TOP OF THE PROPERTY DOWNWARDS

EXTERNAL

CHIMNEY STACKS



Chimney Stacks

Chimneys developed originally from open fires placed within buildings. From this, the chimney has developed to its present day format where it is used as an aesthetic feature and focal point rather than purely just to heat the room.

There are two chimneys to this property they are located one to the left hand side and one to the right hand side. The right chimney sits on the Party Wall (all directions given as you face the property).

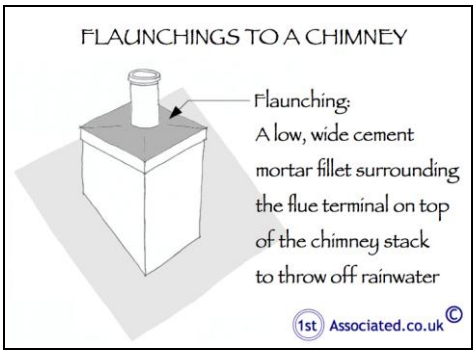
Chimney One - left.

This chimney is brick finished with a lead flashing and one chimney pot. The chimney is leaning and needs re-pointing.

Left chimney is leaning over

The chimney is right at the back of the property and we cannot recall seeing the chimney internally in this area. It may have been partially removed and in which case may have to have repairs carried out. To be on the safe side we suggest you budget for a thousand pounds for repairs to this chimney which would involve lintels or rebuilding part of the chimney on the lower ground floor.

Unfortunately we also were unable to see the flaunching, however as the chimney is at an angle it does tend to indicate that the flaunchings are deteriorating.



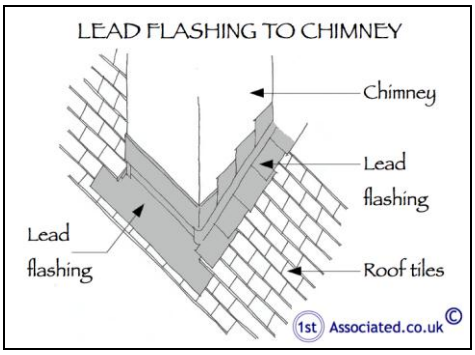
ACTION REQUIRED: Please see our comments within the Executive Summary and periodically inspect the chimney.

Chimney Two - right

Our comments are very similar to the first chimney with the addition that the lead flashing does not look to be working and needs inspecting.

Top of right chimney

ACTION REQUIRED: Please see our comments within the Executive Summary and periodically inspect the chimney.



Base of right chimney

Flashings Defined

Flashings prevent dampness from entering the property, usually at junctions where materials change. Such a junction is the one between the chimney and the roof.

Flaunchings Defined

A low, wide cement mortar fillet surrounding the flue terminal on top of the chimneystack to throw off rainwater.

Party Wall

The party wall relates to shared items, such as chimney stacks and firewalls. If you do any work on these you will need to deal with the Party Wall Act. Here is a brief explanation of it.

Party Structures Defined - Party Wall Act Etc. 1996

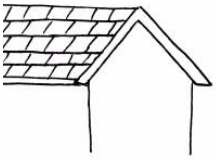
A structure that both parties enjoy the use of or benefit from. An example of this would be where both parties gain support from a wall or utilise a chimney or chimneys.

Any work to party structures, such as party walls or party chimney stacks, require agreement under the Party Wall Act. We would be more than happy to offer you help and advice in this matter.

Finally, we have made our best assumptions on the overall condition of the chimney stacks from the parts we could see above roof level. The inspection was made from ground level within the boundaries of the property (unless otherwise stated) using a x16 zoom lens on a digital camera. A closer inspection may reveal latent defects.

Please also see Chimney Breasts, Flues and Fireplaces Section of this Report.

ROOF COVERINGS AND UNDERLAYERS



The Roof Coverings and Underlayers section considers the condition of the outer covering of the roof. Such coverings usually endure the extremes of climate and temperatures. They are susceptible to deterioration, which ultimately leads to water penetration.

Dependent upon the age of your property and the type of construction it may or may not be present, please read on:

We will consider the roofs in two areas, the main roof and the low level roofs.

The main roof is pitched and clad with a small nibbed clay tile and needs re-roofing. There is also a dip to the rear of the roof.

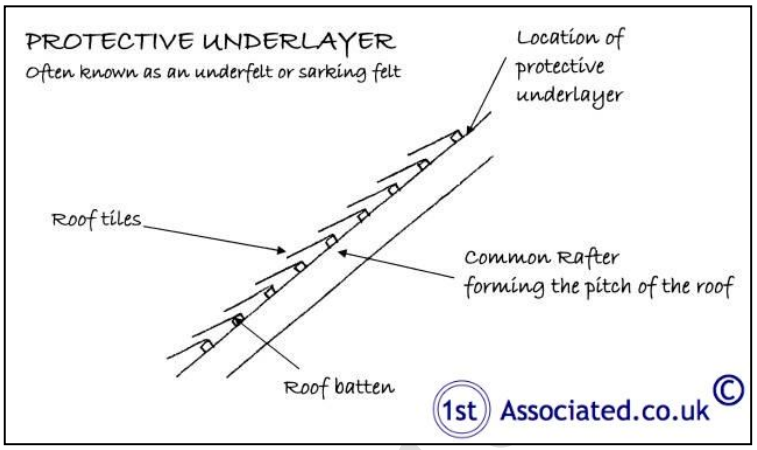
Dip in the main roof to the rear

ACTION REQUIRED: Please see our comments within the Executive Summary. We would recommend a discount on the price of the property and you should consider every year that the roof lasts to be good luck and nothing more as it really does depend on the strength of the weather. You should budget for a replacement.

As an interim measure the roof can be cleared and boarding can be put down with insulation at floor level. This will then add an extra barrier for any dampness coming through and will also indicate where the worst parts of the roof are. We would consider this a stitch in time rather than a solution.

Protective Underlayer (Often known as the sarking felt or underfelt)

From the 1940s onwards felts were used underneath tiles/slates to stop wind damage and water penetration, these in more recent years have been replaced with plastic equivalents. These are commonly known as underfelts but now the name is not really appropriate, as felt is not the only material used.



The tiles are nibbed tiles with no protective under layer. This means that wind driven rain can get underneath the tiles and indeed we can see that this is happening from the staining within the roof. We are always in a Catch- 22 with regard to this type of roof as although it is letting in some rain water it is not letting in that much.

This photo shows the common rafters (the ones that form the pitch of the roof) and the backs of the tiles.

ACTION REQUIRED: Please see our comments within the Executive Summary.

Finally we would not store any valuables in this area.

Low Level Roofs

Bay Window Roofs

We could not see any visual signs internally of any dampness getting through.

Bay window roof

Bay window roof

Conservatory Roof

This is a polycarbonate roof and is in need of a clean. The roof is fairly shallow and we would much prefer to see a roof with a bigger pitch than this.

Conservatory roof

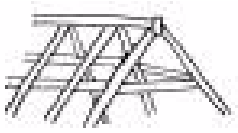
Polycarbonate roof

All the roofs were inspected from ground level with the aid of a x16 zoom lens on a digital camera.

Finally, we were only able to see approximately ninety percent of the main roof from ground level via our ladder or via any other vantage point that we managed to gain. We have made our best conclusions based upon what we could see, however a closer inspection may reveal other defects.

For further comments with regard to ventilation please see the Roof Structure and Loft Section.

ROOF STRUCTURE AND LOFT



(ALSO KNOWN AS ROOF SPACE OR ATTIC SPACE)

The roof structure or framework must be built in a manner which is able to give adequate strength to carry its own weight together with that of the roof covering discussed in the previous section and any superimposed loads such as snow, wind, foot traffic etc.

Main Roof

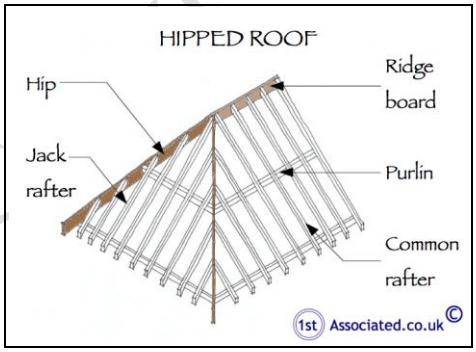
Roof Access

The main roof is accessed via the loft hatch located on the landing. There is no loft ladder, electric light or secured floorboards. We recommend that these be added, as it will make the loft space safer and easier to use.

The loft (perimeter) has been viewed by torch light. Viewing has been limited slightly as we have had to view it from the loft hatch due to the mass of insulation although we did venture into the roof slightly.

Roof Structure

This type of roof structure has what is known as a hipped cut timber roof. This is a roof that is purpose made and hand built on site. Without the original design details we cannot categorically confirm that there are no defects; however it is in line with what we typically see. A weak area is the junction of the hip but this looked in reasonable condition where we could see it.



Hip of the roof

Roof Timbers

We have inspected the roof structure for:

- Serious active woodworm
- Structurally significant defects to the timbers
- Structurally significant dry rot
- Structurally significant wet rot

General view of the roof

Our examination was limited by the general configuration of the roof, the insulation (and insulation rolls), boards and stored items. What we could see was generally found to be in average condition for its age, type and style. It is, however, feasible that there are problems in the roof that are hidden.

> **ACTION REQUIRED**: The only way to be 100 per cent certain is to have the roof cleared and checked.

Fire Walls

The property has one brick firewall which is located to the right hand side (all directions given as you face the property).

Fire Walls Defined

Fire walls help prevent the spread of fire through roofs and are a relatively recent Building Regulation requirement.

Water Tanks

There is a plastic water tank within the roof.

We would always recommend that water tanks be drained down and cleared of any debris etc. (we have seen dead birds and other unmentionable things in these tanks). As you are often cleaning your teeth with this water it is best that it is as clean as possible!

Plastic water tank

Ventilation

The roof is naturally ventilated due there being no protective underlayer.

Insulation

Please see the Thermal Efficiency Section of this Report.

Electrical Cables

We can often identify the age of an electrical installation by the age of wiring found in the roof. In this case there was insufficient quantity of wiring to comment.

Please see our further comments in the Services Section of this Report.

Finally, we would ask you to note that this is a general inspection of the roof, i.e. we have not examined every single piece of timber. We have offered a general overview of the condition and structural integrity of the area.

GUTTERS AND DOWNPIPES

The function of the gutters and downpipes is to carry rainwater from the roof to the ground keeping the main structure as dry as possible.

Defective gutters and downpipes are a common cause of dampness that can, in turn, lead to the development of rot in timbers. Regular inspection and adequate maintenance are therefore essential if serious problems are to be avoided.

Gutters and Downpipes

Gutter and downpipe

Some of the gutters and downpipes have been replaced with plastic; usually they were originally cast iron.

There may be some minor leaks but most people would be happy to live with these providing repairs are carried out within the next six to twelve months.

ACTION REQUIRED: We would recommend you stand outside the property next time it rains heavily and see how well the drains cope with the rainwater particularly looking at the guttering and the joints.

We would also recommend that the gutters and downpipes are cleaned out, the joints are checked and the alignment checked to ensure that the gutters fall towards the downpipes.

It is particularly important to get rainwater goods watertight with an old rendered property such as this. You will be amazed at how quickly this render can deteriorate particularly if the paintwork is not maintained to a good standard.

Soil and Vent Pipe

Soil and vent pipe

The property has cast iron and plastic soil and vent pipes.

Finally, gutters and downpipes and soil and vent pipes have been inspected from ground level. As it was not raining at the time of the inspection it is not possible to confirm 100 per cent that the rainwater installation is free from blockage, leakage etc. or that it is capable of coping with long periods of heavy rainfall. Our comments have therefore been based on our best assumptions.

WALLS

External walls need to perform a variety of functions. These include supporting upper floors and the roof structure, resisting dampness, providing adequate thermal and sound insulation, offering resistance to fire and being aesthetically presentable.

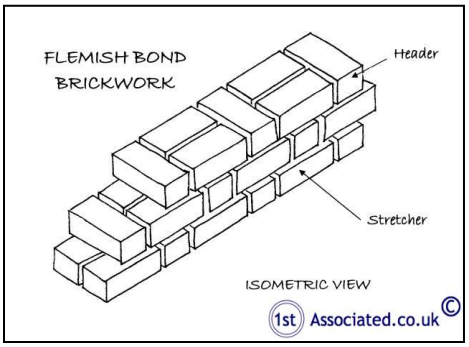
The walls are constructed of brickwork and painted render.

Brickwork

The property is built in a brick originally in a lime mortar in what is known as Flemish bond brickwork.

Flemish bond brickwork

The term Flemish Bond relates to the way the bricks are bonded together and have a pattern visible from the outside of the property that shows the end of the brick (header), then the side of the brick (stretcher), then the end of the brick, then the side of the brick, and this pattern repeats course after course, i.e. header-stretcher, header-stretcher.



The solid external walls may be liable to penetrating dampness internally, dependent upon their condition and their exposure to the weather. External faces should be kept in good condition.

Before the 19th Century, the practice of building timbers into external walls was almost universal. These were known as bonding timbers. They are of course prone to rot as solid walls allow dampness through. Unfortunately, without opening up the structure, we are unable to confirm if this is the case.

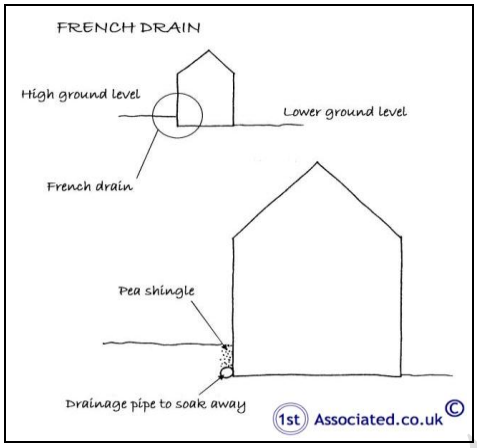
Generally Flemish Bond brickwork is liable to penetrating dampness internally, dependent upon the condition of the brickwork and the exposure to the weather. In this case it is essential that external faces be kept in good condition.

Water damage at base of property

This indicates that water sits against it.

ACTION REQUIRED: Ideally add a French Drain to the base of the property. Please see our article within the appendices.

ANTICIPATED COST: In the region of £1,000 - £2,000 (one thousand to two thousand pounds) dependant on if there is a drain for it to go in to. This helps with the general dampness under the property and we would stress that you need to open the floor as soon as possible.



Water damage at base of property

Render

The external walls are rendered to the front and side at high level.

ACTION REQUIRED: Please see our comments within the Executive Summary.

Render

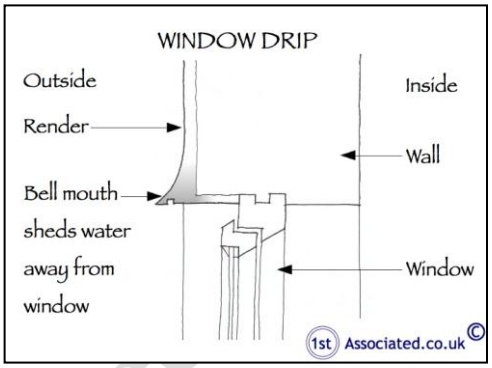
Cracking

We would remind you that any hairline cracks that appear need to be sealed as soon as possible to stop dampness and water getting in and causing blisters and hollow areas.

ACTION REQUIRED: Please see our comments within the Executive Summary.

Window Drip Detail

In this case we found no drip detail to the windows because the property is only rendered on the first floor.



Bell mouth detail

The render stops at the brick band with a slight bell mouth.

Slight bell mouth

Painted render/painted walls

Do not underestimate the amount of time/cost it will take to repaint the property particularly as there is high level work which is likely to need scaffolding which can be expensive.

Alterations to the lintels

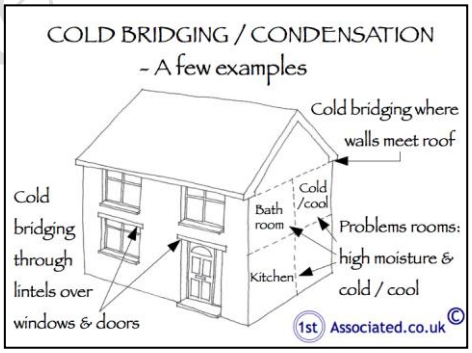
Rather unusually there have been alterations to the lintels of the property in several areas. In the photos you can see the old soldier (vertical bricks) brick course and how this has been cut away and altered and what looks to be a concrete lintel has been added. Please see our comments in relation to cold bridging and condensation.

Lintel altered to rear

Lintel altered to the rear

Lintel altered to the left hand side

Concrete Lintels



There may be cold bridging in this property because of the concrete lintels. This is a common problem and there looks to have been problems in the past which is why the lintels have been replaced. There does not seem to be any other reason for this other than possibly minor settlement.

ACTION REQUIRED: To be on the safe side regarding the settlement we would recommend a closed circuit TV report or as mentioned previously that you get the owners to submit an insurance claim.

Please see our article in the Appendices at the back of the report regarding cold bridging and our comments within the Executive Summary.

Cold Bridging Defined

Cold bridging is caused by a colder element in the structure allowing coldness to pass through the structure much quicker when warm moist air is present in the property, often caused by things like having a shower or a bath, cooking or washing, particularly if you are drying washing on the radiators. This is also caused by the general climate which results in condensation on the element.

Finally, the external walls have been inspected visually from ground level and/or randomly via a ladder. Where the window and door lintels are concealed by brickwork / painted render / plasterwork we cannot comment on their construction or condition. In buildings of this age timber lintels, concrete lintels, rubbed brick lintels or metal lintels are common, which can be susceptible to deterioration that is unseen, particularly if in contact with dampness.

Our comments have been based upon how the brickwork / painted render / plasterwork has been finished. We have made various assumptions based upon what we could see and how we think the brickwork / painted render/ plaster would be if it were opened up for this age, style and type of construction. We are however aware that all is not always at it seems in the building industry and often short cuts are taken. Without opening up the structure we have no way of establishing this.

FOUNDATIONS

The foundations function is, if suitably designed and constructed, to transfer the weight of the property through the soil. As a general comment, many properties prior to the 19th Century have little or no foundations, as we think of them today, and typically a two-storey property would have one metre deep foundations.

Foundations

Given the age of the property you may find different depths of foundations. We would expect to find a stepped brick foundation possibly and possibly a concrete foundation for the conservatory

London Clay

As with most properties in the London area, this property stands on London Clay. It is therefore more susceptible than most should drains leak or trees be allowed to overgrow etc. It is not unusual to have some settlement in London properties. However, from our inspection of the walls we have found nothing unusual.

Building Insurance Policy

You should ensure that the Building Insurance Policy contains adequate provision against any possibility of damage arising through subsidence, landslip, heave etc.

It is your responsibility to check out prior to commitment to purchase that insurance is available on the property on the basis of the things we have reported in the survey. Much as we would like to we are unable to keep up with the changing insurance market and give you advice with regard to this. Please remember to talk about any cracks identified within the property. Often insurers will refer to progressive and non-progressive cracking. Unfortunately this is something we are unable to comment upon from a one-off inspection - the Building Research Establishment recommend a year of monitoring of any cracking.

We would always recommend that you remain with the existing insurance company of the property.

We would refer you to our comments with regard to building insurance throughout this report.

Finally, we have not excavated the foundations but we have drawn conclusions from our inspection and our general knowledge of this type, age and style of property.

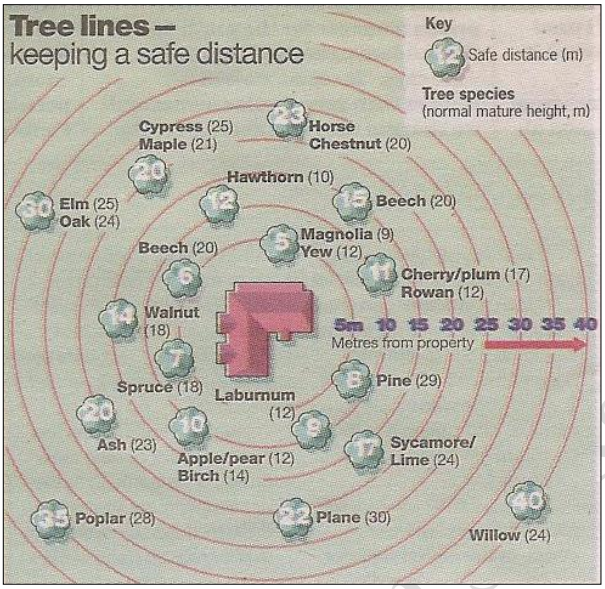
As no excavation has been carried out we cannot be 100 percent certain as to how the foundation has been constructed and we can only offer our best assumptions and an educated guess, which we have duly done.

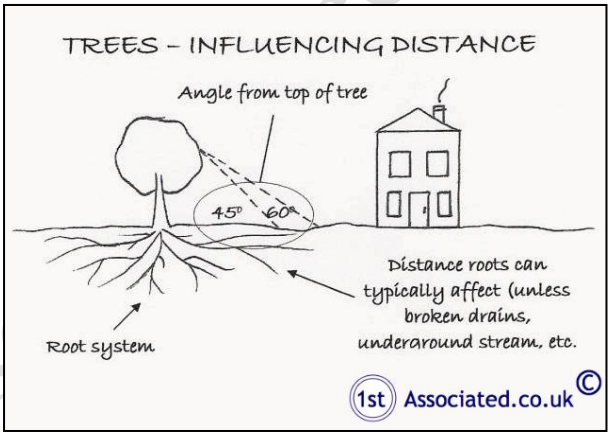
TREES

FOUNDATIONS

Trees within influencing distance of a property can affect the foundations by affecting the moisture content of the soil.

There are no trees within what insurance companies would term influencing distance of the property.





Influencing Distance Defined

This is the distance in which a tree may be able to cause damage to the subject property. It is not quite as simple as our sketch; it depends on the tree, its maturity, the soil type etc., etc.

Please also refer to the External Areas Section.

DAMP PROOF COURSE

The Building Act of 1878 required a damp proof course to be added to all newly built properties within the London area. It also required various other basic standards. These requirements were gradually taken up (or should that be grudgingly taken up) throughout London and then the country as a whole, although this took many years for it to become standard practice.

All modern properties should incorporate a damp proof course (DPC) and good building practice dictates that a differential of 150mm (6 inches) should be maintained between the damp proof course and ground levels. In this case, we could not see a DPC because of the render plinth but in some areas we could see a thickening of the joint indicating a DPC.

We could not see a DPC in some areas because of the render plinth

Your attention is drawn to the section of the report specifically dealing with dampness.

Thickening of the joints indicate a possible DPC

Finally, sometimes it is difficult for us to identify if there is a damp proof course in a property. We have made our best assumptions based upon our general knowledge of the age, type and style of this property.

AIRBRICKS

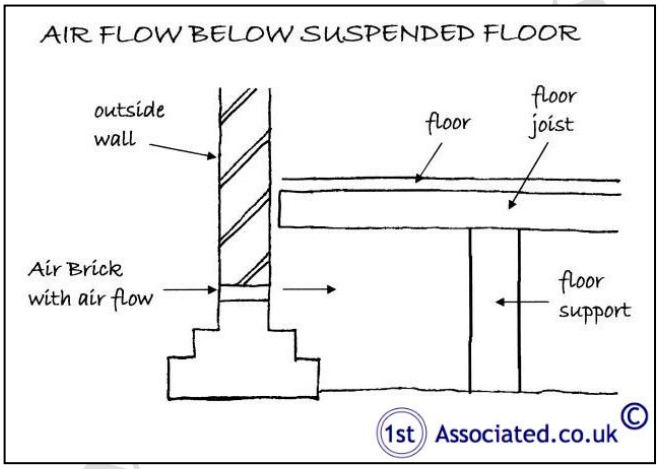
In properties with suspended floors you need to have an airflow beneath to stop deterioration. The air is allowed to pass under the property by the use of airbricks. Generally the rule of thumb is that airbricks are spaced every metre and a half approximately, but this depends upon the specific circumstances of the property.

Low Level Air Bricks

There are problems with these as some airbricks are acting as gutters.

Air bricks are essential to have a through flow of air as this helps to reduce the chances of wet rot, dry rot and woodworm.

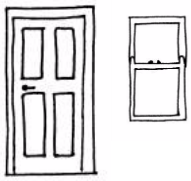
ACTION REQUIRED: Please see our comments within the Executive Summary.



Air brick

Finally, we have made our best assumptions based upon our visual inspection of the outside of the property and our general knowledge of this age, type and style of construction. We have not opened up the floor, unless we have specifically stated so in this section.

FASCIAS AND SOFFITS AND WINDOWS AND DOORS



This section covers fascias, soffits and bargeboards and windows and doors, and any detailing such as brick corbelling etc.

Fascias and soffits offer protection to the rafter feet and also allow the securing of the guttering. Windows primary functions are to admit light and air, but they also have thermal and sound properties. The doors allow access and egress within the property.

Fascias and Soffits

The fascias and soffits are timber. They are painted and are deteriorating in some areas, for example, the right hand side of the fascia board to the bay window.

Deteriorating fascias

Windows and Doors

The property has a combination of plastic double glazed windows (without trickle vents) and timber single glazed windows. We would specifically comment that the plastic windows are the older style and as we mentioned do not have trickle vents. The conservatory also does not have trickle vents which both together means you will have an added chance of cold bridging.

Conservatory does not have trickle vents

We noted a poor quality window to the front left hand side of the property (all directions given as you face the front of the property). Also some of the timber windows will need replacement timbers as opposed to repair due the number of times and depth of repair that has been carried out.

We would draw your attention to the fact that sealed double glazed units can fail, particularly as a result of poor workmanship during installation. Failure of the seal leads to condensation between the two panes of glass and simply replacing the affected units may not provide a satisfactory long-term solution.

Misted window

Enquiries should be made as to the existence of any transferable guarantees. Generally it is considered that double glazed units have a life of about ten years.

Trickle Vents Defined

Trickle vents allow a trickle of air through, therefore stopping/reducing the likelihood of condensation occurring within the property.

Knife test on windows

Discoloured plastic on conservatory needs cleaning

Windows without sills

We noted that some windows did not have sills which is unusual.

ACTION REQUIRED: We would recommend that these are added.

ANTICIPATED COST: Likely to cost in the region of £500 - £1,000; please obtain quotations.

Some windows did not have sills

Finally, we have carried out a general and random inspection of the external joinery. In the case of the fascias and soffits it is typically a visual inspection from ground level. With the windows and doors we have usually opened a random selection of these during the course of the survey. In this section we are aiming to give a general overview of the condition of the external joinery. Please also see the Internal Joinery section.

EXTERNAL DECORATIONS

The external decorations act as a protective coat for the building from the elements. Where this protective covering has failed, such as with flaking paintwork, the elements will infiltrate the structure. This is of particular concern as water is one of the major factors in damage to any structure.

Do not underestimate the amount of time/cost it will take to repaint the property particularly as there is high level work which may need scaffolding and which can be expensive. You cannot neglect this work as the property will deteriorate rapidly.

Finally, ideally external redecoration is recommended every four to five years dependent upon the original age of the paint, its exposure to the elements and the materials properties. Where painting takes place outside this maintenance cycle repairs should be expected. Ideally redecoration should be carried out during the better weather between mid-April and mid-September.

Please see our comments in the External Joinery section.

INTERNAL

CEILINGS, WALLS, PARTITIONS AND FINISHES

In this section we look at the finish applied to the structural elements such as the plasterwork applied to the ceiling joists, walls or partitions, together with the construction of the internal walls and partitions.

Ceilings

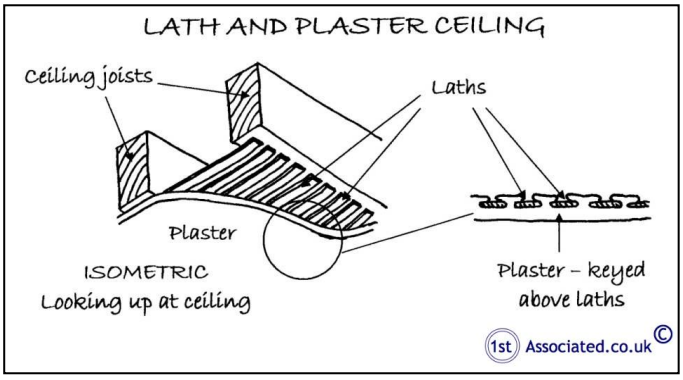
Where we could see the ceilings from within the roof space we could identify that the ceilings are lath and plaster. This is an older style ceiling and can suffer from deterioration due to age in this era of property. The lath and plaster was generally in what we would term as average condition.

Lath and plaster

The area of concern is that the dampness coming through from the roof will cause dampness in the lath and plaster. Please see our earlier comments about putting down floor boards with insulation in the roof space as soon as possible to protect the ceiling as well as identify where the damp is coming from in the roof.

Lath and Plaster Defined

Laths are thin strips of timbers which are fixed to the structure. Wet plaster is applied to the laths, usually in several layers. The plaster forms a key as it is forced between the laths. This plaster, once dry, is given further coats and often a decorative finish.



Internal Walls and Partitions

These are, we believe predominantly solid. It is of course impossible to determine the construction without opening up the walls and we have therefore taken an educated guess.

Perimeter Walls

Originally these would have been constructed with a wet plaster, possibly a lime plaster.

Again we cannot be 100% certain of the wall construction without opening them up which goes beyond the scope of this report.

This comment has been based on the visual look of the wall which is relatively "smooth" and normally means a modern finish.

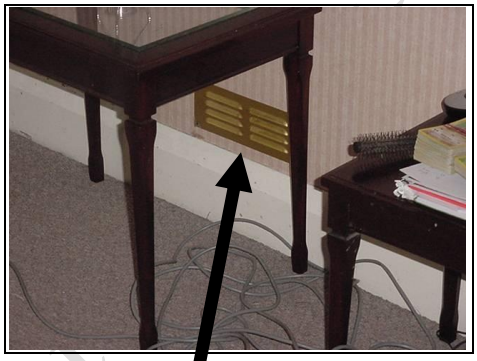
Finally, ceilings, walls and partitions have been inspected from floor level and no opening up has been undertaken (unless permission has been obtained by yourselves). In some cases the materials employed cannot be ascertained without samples being taken and damage being caused.

We cannot comment upon the condition of the structure hidden behind plaster, dry lining, other applied finishes, heavy furniture, fittings and kitchen units with fitted back panels.

CHIMNEY BREASTS, FLUES AND FIREPLACES

With the advent of central heating fireplaces tend to be more a feature than an essential function in most properties.

The main chimney breasts are located to the right hand side (all directions given as you face the front of the property).



Venting to chimney breast

At the time of the survey no chimneys were in use. Any chimneys that you do not propose to use should be capped and ventilated to prevent dampness.

We could not identify the rear chimney throughout its entire length. For example we could not see the chimney breast within the kitchen area where we would have expected to see it.

Finally, we will comment on the condition of the chimney breast where we can see the chimney breast. If we can see a chimney breast has been removed we will inspect for signs of movement and advise. However, often the chimney breasts are hidden so we cannot comment. Also additional support can be concealed very well when chimney breasts are hidden particularly when plastered over.

Your Legal Advisor needs to specifically check with the Local Authority for removed chimneys and associated chimney breasts and Building Regulations Approvals and advise by e-mail immediately if chimney breasts are found to have been removed. We would recommend opening up the structure to check the condition. If we are not advised we will assume the relevant Building Regulations Approval has been obtained.

It is strongly recommended that flues be cleaned and checked for obstructions prior to use to minimise the risk of hazardous fumes entering the building.

Please also see the Chimney Stacks, Flues and Parapet Walls section of this Report.

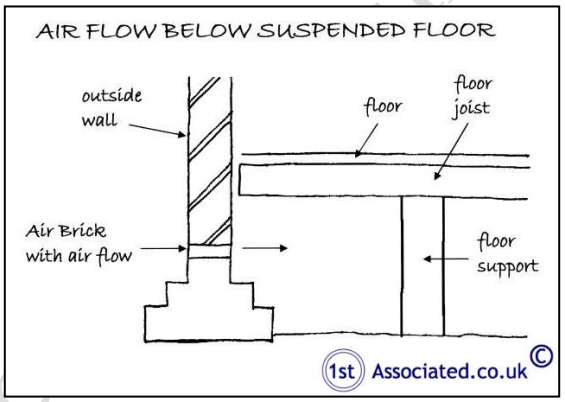
FLOORS

Functionally floors should be capable of withstanding appropriate loading, preventing dampness, have thermal properties and durability. In addition to this upper floors should offer support for ceilings, resistance to fire and resistance to sound transfer.

Ground Floor

The ground floors of the property are suspended timber floors which require air movement underneath to minimise wet rot, dry rot and woodworm.

ACTION REQUIRED: Please see our comments within the Executive Summary particularly about the air bricks acting as gutters and the need to open up the floor.



Conservatory Extension

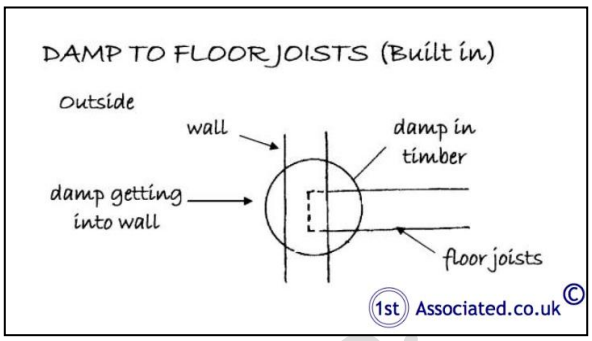
Where extensions are added, they can often block the air movement. In this instance we believe it does. In this case we can see airbricks indicating a timber floor although it did not feel like it under foot apart from that it was laminated. It may also be a concrete floor with vents, we simply do not know without opening it up. The laminate restricts us from doing this and also restricts us from viewing the floor.

Poor quality laminate flooring with quadrant bead.

Our investigation has been restricted due to us not opening up the floor or lifting the carpets/laminate/floor coverings.

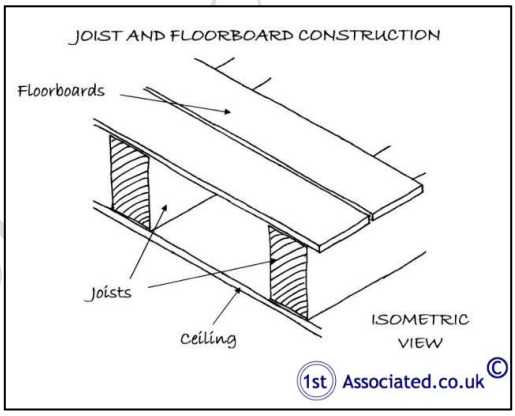
First Floor

We have assumed that the first floor construction is joist and floorboards with embedded timbers as this is typical in this age of property.



Joist and Floorboard Construction Defined

These are usually at first floor level consisting of a joist supported from the external walls, either built in or, in more modern times, sitting upon joist hangers, sometimes taking additional support from internal walls, with floorboards fixed down upon it.



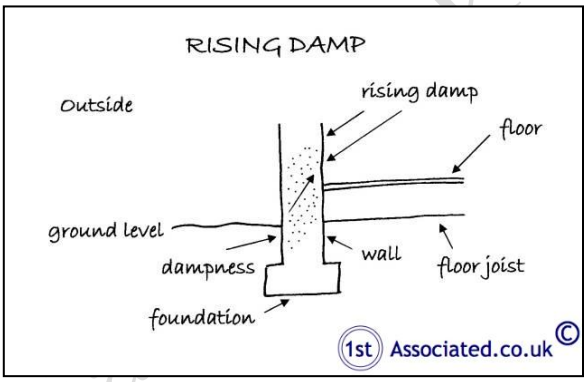
Finally, we have not been able to view the actual floors themselves due to them being covered with fitted carpets, floor coverings, laminated flooring etc. The comments we have made are based upon our experience and knowledge of this type of construction. We would emphasise that we have not opened up the floors in any way or lifted any floorboards.

DAMPNESS

In this section we look at any problems that are being caused by dampness. It is therefore essential to diagnose the source of the dampness and to treat the actual cause and not the effect of the dampness.

Rising Damp

Rising damp depends upon various components including the porosity of the structure, the supply of water and the rate of evaporation of the material, amongst other things. Rising damp can come from the ground, drawn by capillary action, to varying degrees of intensity and height into the materials above. There is now great scepticism that true rising damp rarely occurs. We can advise you further on this if you so wish.



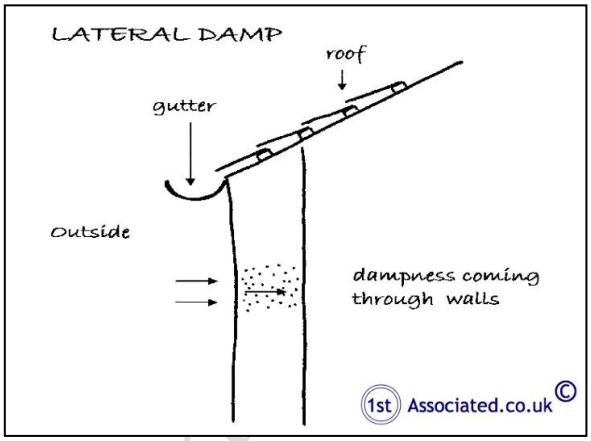
A visual inspection and tests with a moisture meter have been taken to the perimeter walls.

In this particular case we have found minor rising damp.

ACTION REQUIRED: Please see our comments about air flow underneath the property which we feel will alleviate matters. Ideally the brick work should not have been painted at all as this stops the brickwork from breathing.

Lateral or Penetrating Dampness

This is where water ingress occurs through the walls. This can be for various reasons such as poor pointing or wall materials or inadequate gutters and downpipes, such as poorly jointed gutters.



We used a damp meter on the external walls. We have found minor dampness due to the cracking we think is likely in the render but that has been painted over to sell.

ACTION REQUIRED: Please see our comments in the Executive Summary.

Condensation

This is where the humidity held within the air meets a cold surface causing condensation.

At the time of the inspection there were signs of condensation. There was a lot of condensation in the shower area. This is also due to the cold bridging.

ACTION REQUIRED: Please see our various comments within the Executive Summary.

Condensation also depends upon how you utilise the building. If you do your washing and then dry it in a room without opening a window you will, of course, get condensation. Common sense is needed and a balance between heating, cooling and ventilation of properties and opening windows to air the property regularly.

Extract fans in kitchens and bathrooms

A way of helping to reduce condensation is to have good large extract fans within the kitchens and bathrooms which are moisture generating areas.

> **ACTION REQUIRED:** We would recommend larger humidity controlled extract fans be added to kitchens and bathrooms.

Finally, effective testing was prevented in areas concealed by heavy furniture, fixtures such as kitchen fittings with backboards, wall tiles and wall panelling. We have not carried out tests to BRE Digest 245, but only carried out a visual inspection.

INTERNAL JOINERY

This section looks at the doors, the stairway, the skirting boards and the kitchen to give a general overview of the internal joinery's condition.

Doors

The doors are original painted panel doors.

Panel door

Staircase

We noted that the underside of the staircase was exposed. It is more normal today to have a half hour fire barrier to stop fire spreading from the ground floor to the first floor in a worse case scenario. You may wish to take a view on whether you add this.

The stairs are not lined

ACTION REQUIRED: This needs lining. Also please see our comments with regard to the landing and the top of the stairs which need securing.

ANTICIPATED COST: A few hundred pounds.

Kitchen

We found the kitchen in average condition, subject of course to some wear and tear.

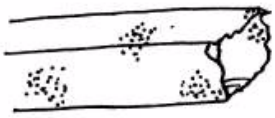
We have not tested any of the kitchen appliances.

Please note our comments with regard to the chimney being removed in this area. There may be a support system needed although there are no obvious tell-tale signs of problems in the structure such as cracking and undulations in the walls.

Kitchen

Finally, it should be noted that not all joinery has been inspected. We have viewed a random sample and visually inspected these to give a general over-view of the condition. Please also see the External Joinery/Detailing section.

TIMBER DEFECTS



This section considers dry rot, wet rot and woodworm. Wet and Dry rot are species of fungi, both need moisture to develop and both can be very expensive to correct. We would also add that in our experience they are also often wrongly diagnosed.

Dry Rot

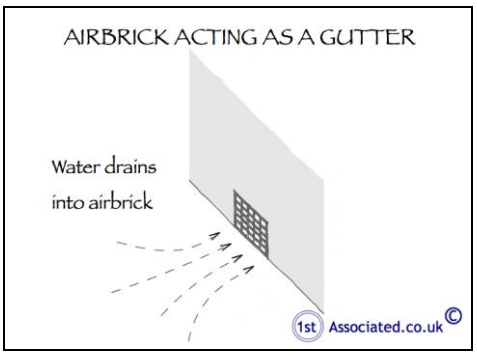
Dry rot is also sometimes known by its Latin name Serpula lacrymans. Dry rot requires constant dampness together with a warmish atmosphere and can lead to extensive decay in timber.

We have not visually seen any dry rot during the course of our inspection. We would advise that we have not opened up the floors and we had a limited view of the roof.

Wet Rot

Wet rot, also known by its Latin name Contiophora puteana, is far more common than dry rot. Wet rot darkens and softens the wood and is most commonly seen in window and doorframes, where it can relatively easily be remedied. Where wet rot affects the structural timbers in a property, which are those in the roof and the floor areas, it is more serious.

Again, we have not visually seen any wet rot during the course of our inspection. However there is a good chance it is under the floor particularly as there are air bricks acting as gutters.



Woodworm

Active woodworm can cause significant damage to timber. There are a variety of woodworm that cause different levels of damage with probably the worst of the most well known being the Death Watch Beetle. Many older properties have woodworm that is no longer active, this can often be considered as part of the overall character of the property.

The roof is the main area that we look for woodworm.

Within the roof we found no obvious visual signs of woodworm activity or indeed signs of past woodworm activity that has caused what we would term 'structurally significant' damage. In many properties there is an element of woodworm that is not active. Our inspection is usually restricted by insulation covering some of the timbers and general stored items in the roof, as it is restricted throughout the property by general fixtures and fittings.

> **ACTION REQUIRED:** If you wish to be 100 per cent certain that there is no woodworm the only way would be to check the property when is emptied of fixtures and fittings etc.

Finally, when you move into the property, floor surfaces should be carefully examined for any signs of insect infestation when furniture and floor coverings are removed together with stored goods. Any signs that are found should be treated to prevent it spreading. However, you need to be aware that many damp and woodworm treatment companies have a vested interest in selling their products and therefore have fairly cleverly worded quotations where they do not state if the woodworm they have found is 'active'. You should ask them specifically if the woodworm is active or not.

We would also comment that any work carried out should have an insurance backed guarantee to ensure that if the company does not exist, or for whatever reason, the guarantee is still valid. More importantly it is essential to ensure that any work carried out is carried out correctly.

INTERNAL DECORATIONS

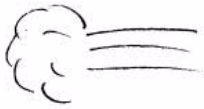
With paints it should be remembered that up to 1992 lead could be used within paint and prior to this most textured paints (commonly known as Artex) contained an element of asbestos up to 1984, so care should be taken if the paintwork looks old and dated.

Internal decorations are in below average condition.

You may wish to redecorate to your own personal taste. It is very difficult to advise on how frequently redecoration should take place. This very much depends upon the use and abuse the decoration gets, for example, within hallways this tends to be greater than for example within a spare bedroom.

Finally, we would draw your attention to the fact that removal of existing decorative finishes may cause damage to the underlying plasterwork necessitating repairs and making good prior to redecoration.

THERMAL EFFICIENCY



Up until the mid 1940s we did not really consider insulation in properties, for example it was only in the 1960s that we started putting insulation in the roof and then it was about 50mm, in the 1970s this was upgraded to 100mm. Then we started to think about double glazing and cavity wall insulation. Since then insulation standards have increased considerably and today we are looking at typically using insulation not only in the roof but also in the walls, floors and windows and more recently considerable work has been carried out on how efficient boilers are within properties. Care has to be taken that properties are not insulated disproportionately to the ventilation as this can cause condensation and you should be aware that you need to ventilate any property that is insulated.

HIPs

We understand that HIPs were suspended from 20th May 2010. Energy Performance Certificates are required before a sale completes.

Roofs

In this instance there is 300mm of insulation present within the roof which meets current Building Regulations (300mm).

Walls

The walls to this property are predominantly solid in the sense that they do not have a cavity as a modern property would have. Also they are unlikely to have any substantial insulation, However, unfortunately it is generally very difficult to improve the insulation without affecting the external or the internal appearance of the property.

Windows

The windows are a mixture of single and double glazed therefore will have poor / average thermal properties.

Services

Service records should be obtained. It is essential for the services to be regularly maintained to run efficiently.

Summary

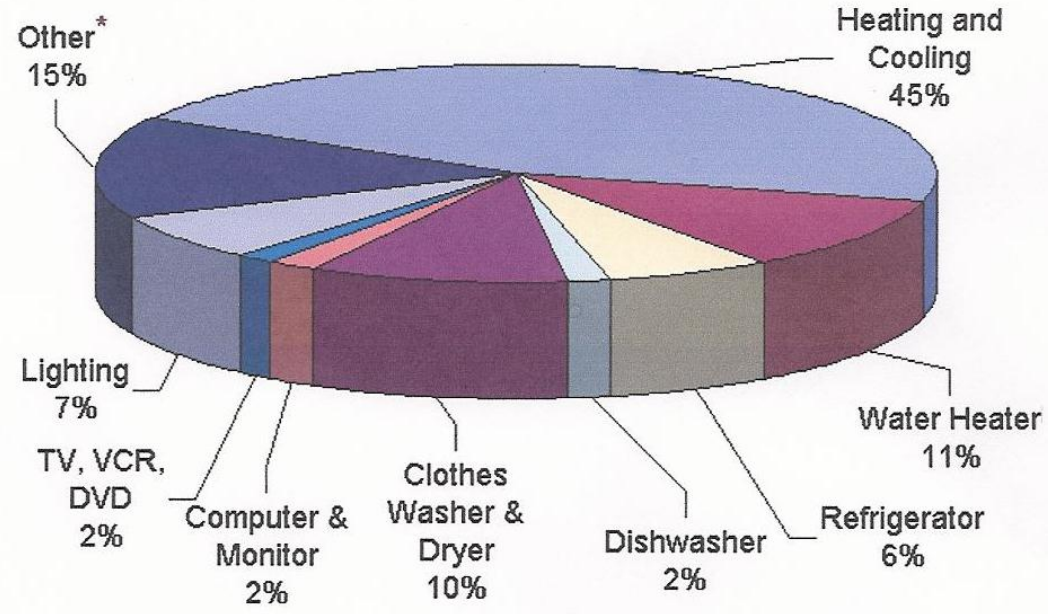
Assuming the above is correct, this property is average compared with what we typically see.

Further information can be obtained with regard to energy saving via the Internet on the following pages:

> *HTTP//www.est.org.uk, which is by the Energy Saving Trust and includes a section on grant aid.*
>
> *or alternatively www.cat.org.uk*
>
> *or Sustainable Energy Without the Hot Air by David J C MacKay HTTP//www.withouthotair.com/Videos.html to download for free or buy a paper copy as we did.*
>
> *It is worth watching the video How Many Light Bulbs? by David J C MacKay HTTP//www.youtube.com/watch?v=UR8wRSp21Xs*

Finally, we would comment that energy we feel will become a major consideration in years to come, particularly with the greater focus in modern buildings on energy efficiency.

What does my energy bill pay for?



* "Other" represents an array of household products, including stoves, ovens, microwaves, and small appliances. Individually, these products account for no more than about 2% of a household's energy bills.

OTHER MATTERS

In this section we put any other matters that do not fit under our usual headings.

Security

No security system was noted. It is a personal decision as to whether you feel one is necessary. We are not experts in this field and therefore cannot comment further. We suggest you contact a member of NACOSS (National Approval Council for Security Services), obtainable through directory enquiries, or your local Police Force for advice on a security system.

Fire / Smoke Alarms

Some smoke detectors were noted. The current Building Regulations require that they be wired into the main power supply. Obviously in a property of this age this is difficult, as it would mean having surface mounted wires or cutting wiring into the plaster.

> **ACTION REQUIRED**: We would recommend, for your own safety, that smoke detectors be installed. We would always recommend a hard wired fire alarm system and are also aware that some now work from a wireless signal which may be worth investigating. Whilst fire is relatively rare it is in a worst case scenario obviously devastating.

Insurance

We would always recommend staying with the existing insurance company, and then if there are any problems you should not have the difficulty of negotiating with two insurance companies passing the blame between each other.

We would refer you to our comments with regard to building insurance throughout this report.

Asbestos

In a property of this age there may well be some asbestos.

In this case we have noted asbestos to the garage roof.

This was commonly used post war until it was banned only in the last ten or so years, although it is rumoured that it was still used after this point in time.

We are not asbestos surveyors.

> **ACTION REQUIRED:** If you wish to confirm you are 100 percent free of asbestos you need to have an asbestos survey carried out.

SERVICES

This survey does not include any specialist reports on the electricity supply and circuits, heating or drainage, as they were not requested. The comments that follow are based upon a visual inspection carried out as part of the overall Building Survey.

Services and specialist installations have been visually inspected. It is impossible to examine every detail of these installations without partially dismantling the structure. Tests have not been applied. Conclusive tests can only be undertaken by suitably qualified contractors. The vendor/seller should be requested to provide copies of any service records, test certificates and, ideally, the names and addresses of the installing contractors.

ELECTRICITY

It is strange to think that electricity only started to be used in domestic properties at the turn of the 19th century with gas lighting still being the norm for a good many years after.

Periodic inspections and testing of electrical installations is important to protect your property from damage and to ensure the safety of the occupants. Guidance published by the Institute of Electrical Engineers (IEE) recommends that inspections and testing are undertaken at least every 10 years (we recommend every five years) and on change of occupancy. All electrical installation works undertaken after 1st January 2005 should be identified by an Electrical Installation Certificate.

Fuse Board

The electric fuses and consumer units were located under the stairs. The fuse board looked dated and better are now available.

ACTION REQUIRED: Please see our comments within the Executive Summary.

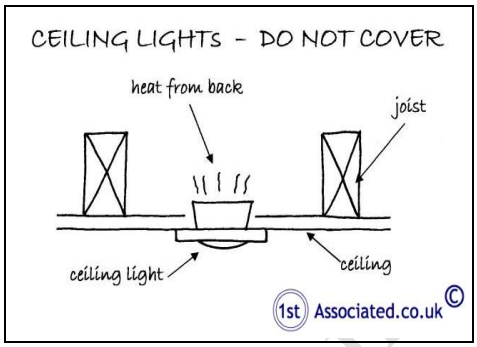
Fuse Board

Ceiling Lights

The property has electric ceiling lights to the kitchen. In some instances these can cause problems as the heat given off has in some cases lead to outbreaks of fire; these tend to be in the older type of ceiling lights and we recommend that where ceiling lights are used that the rear of the light is not covered.

In this case these do look to be the newer style light and tend not to get as hot.

Ceiling light in the kitchen



ACTION REQUIRED: These do need to be checked when you have the IEE test and report carried out.

Earth Test

We carried out an earth test in the kitchen area to the socket point that is normally used for the kettle, this proved satisfactory.

Earth Test

ACTION REQUIRED: Please see our comments within the Executive Summary. As the property is changing occupancy an Institute of Electrical Engineers (IEE) test and report should be carried out by a NICEIC registered and approved electrical contractor or equivalent.

In addition to this your Legal Advisor is required to make full enquires with the owners to establish if any electrical installation work has been carried out and to provide suitable certification for any works carried out after 1st January 2005. Any comments made within this report or verbally do not change this requirement.

For basic general information on this matter please see the appendices at the end of this report.

GAS

There is very little we can check for in a gas installation, we do inspect to make sure there is one and that it has a consumer unit and that the boilers are vented. Ideally you should have a service inspection carried out by an independent Gas Safe registered plumber.

We believe that the property has mains gas. The consumer unit is, we think, located to the left hand side of the property hidden behind the bins.

Gas unit

All gas appliances, pipework and flues should be the subject of an annual service by a competent engineer, i.e., a member of Gas Safe; works to gas appliances etc., by unqualified personnel is illegal. Unless evidence can be provided to confirm that there has been annual servicing we would recommend that you commission such a service prior to use to ensure safe and efficient operation.

ACTION REQUIRED: As a matter of course it is recommended that the entire gas installation is inspected and made good, as necessary, by a Gas Safe registered contractor. Thereafter the installation should be serviced annually.

PLUMBING AND HEATING

In this section we do our best from a visual inspection to look at how the water is supplied to the property, how the supply is distributed around the property, how it is used to heat the property and how it is discharged from the property.

Water Supply

We were advised by the owner that the controlling stopcock is located in the kitchen.

It is important that its presence is established in case of bursts or leaks. The stopcock and other controlling valves have not been inspected or tested for operational effectiveness.

ACTION REQUIRED: Ask the owners to show you where it is.

Water Pressure

When the taps were run to carry out the drainage test we checked the pressure literally by putting a finger over the tap and this seemed average. The Water Board have to guarantee a certain pressure of water to ensure that things like boilers, particularly the instantaneous ones have a constant supply of pressured water (they would blow up if they didn't!).

Cold Water Cistern

Please see our comments in the Roof Section.

Hot Water Cylinder

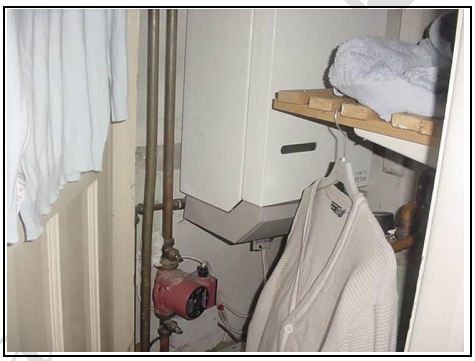
There is a factory insulated hot water cylinder located within the airing cupboard. This cylinder will therefore have a good thermal efficiency, although not as good as the more modern hot water cylinders.

Hot water cylinder

Plumbing

The plumbing, where visible, comprises copper pipework No significant leakage was noted on the surface, although most of the pipework is concealed in ducts and floors.

Heating



Boiler

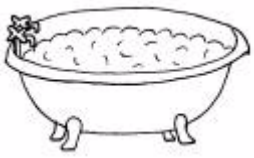
The wall mounted older style boiler was located in the airing cupboard. It is manufactured by Potterton and the model type is Prima.

Our limited inspection of the hot water and central heating system revealed no evidence to suggest any serious defects but we would nevertheless recommend that the system be tested and overhauled before exchange of contracts and that a regular maintenance contract be placed with an approved heating engineer.

Finally, it should be noted that the supply pipe from the Water Company stopcock to the internal stop tap is the responsibility of the property owner.

We cannot comment on the condition of the water service pipe to the building. It should be appreciated that leaks can occur for some time before signs are apparent on the surface.

BATHROOMS



In this section we consider the overall condition of the sanitary fittings such as the bathroom, the kitchen, the utility room and the cloakroom.

Bathroom – First Floor

The property has a two piece bathroom suite, consisting of a bath and wash hand basin, which looks in average condition, subject to some day-to-day wear and tear.

There is also a shower cubicle within the bathroom that suffers heavily from condensation.

Dampness above shower (sorry this is not very clear in the photo)

W.C. - First Floor

The W.C is separate from the bathroom which is convenient.

W.C. – Ground Floor

This is dated.

Dated W.C.

Finally, although we may have already mentioned it above we would reiterate that it is important to ensure that seals are properly made and maintained at the junctions between wall surfaces and baths and showers etc. We normally recommend that it is one of the first jobs that you carry out as part of your DIY on the property, as water getting behind sanitary fittings can lead to unseen deterioration that can be costly, inconvenient and difficult to repair.

MAIN DRAINS

The sanitary system, as we know it now, came into being some 100 years ago during the Victorian era and works so successfully today it is often taken for granted. It is only in recent years that re-investment has taken place to upgrade the original drainage systems.

It is assumed that the foul drains from the property discharge into a public sewer; this should be confirmed by your Legal Advisor prior to exchange of contracts, who should also provide information in respect of any common or shared drains including liability for the maintenance and upkeep of the same.

Inspection Chambers / Manholes

For your information, inspection chambers / manholes are required to be provided in the current Building Regulations at each change of direction or where drainage runs join the main run.

We have identified inspection one chambers / manholes.

Manholes Defined

Access areas which usually fit a man (or woman) into them and are put in where the drains change direction.

Inspection Chamber / Manhole One

We noted in our photos that we had missed a manhole in the garden. We do not anticipate any problems from this. However we would be happy to return at a later date to inspect the manhole if necessary.

Manhole

Finally, it must be emphasised that the condition of the property's foul drains can only be ascertained by the carrying out of a test; such a test has not been undertaken. Should there be leaks in the vicinity of the building then

problems could occur, particularly with respect to the stability of the building's foundations. Drainage repairs are inevitably costly and may result in damage being caused to those areas of the property beneath, or adjacent to, which the drains have been run.

The taps have been run for approximately quarter of an hour. No build up or back up was noted.

Running the taps

Rainwater/Surface Water Drainage

Whilst very innocent looking rainwater downpipes can cause lots of problems. If they discharge directly onto the ground they can affect the foundations and even if they are taken away to soak-aways they can attract nearby tree roots or again affect foundations.

Some rainwater drains are taken into the main drainage system, which is now illegal (as we simply do not have the capacity to cope with it), and can cause blockages to the main drains! Here we have done our best from a visual inspection to advise of any particular problems.

We have been unable to determine the ultimate means of rain/surface water disposal.

These can be a problem during heavy rainfall and peak periods, such as the 9 o'clock rush to work.

Finally, rain/surface water drains have not been tested and their condition or effectiveness is not known. Similarly, the adequacy of soak-aways has not been established although you are advised that they tend to silt up and become less effective with time.

Please also see our comments within the Gutters and Downpipes section.

OUTSIDE AREAS

The main focus of this report has been on the main building. If you wish us to do a specific report on the other buildings then you need to instruct us for this separately. We are offering here a brief overview.

GARAGES/ PARKING

Parking

There is parking on an average quality brick paved area to the front of the property.

Parking

Garage

There is a garage to the left hand side of the property. This has an asbestos roof. There may also be hidden asbestos, for example, to the service ducts and other such areas.

ACTION REQUIRED: Please see our comments within the Executive Summary.

Garage

Asbestos roof

EXTERNAL AREAS

Front Garden

The front garden has mainly been given over to parking. The front boundary wall is quite low for some reason. However we did notice a number of other low ones nearby.

Front garden with low boundary wall

Front garden/parking

Running gully

Rear Garden

There is a large garden to the rear of the property mainly laid to lawn with a paved patio area. Note the condition of the right garden fence which is usually the responsibility of your neighbour (all directions given as you face the front of the property) with your fence being the left hand side.

As you are aware we queried the condition/state of the garden. We knocked on several neighbours doors to establish this further. We were told that they are busy doctors and have not had chance to do the garden. We do feel you need to be one hundred per cent that you are happy with this situation as they will be your immediate neighbours.

Rear Garden

Right hand fence

Boundaries: The left hand boundary (all directions given as you face the property) is usually the responsibility of the subject property.

Finally, whilst we note the boundaries, these may not be the legal boundaries. Your Legal Advisor should make further enquiries on this point and advise you of your potential liability with regard to any shared structures, boundary walls and fences.

Neighbours

Left Hand Neighbours

We spoke to this neighbour who has a very nice garden.

Right Hand Neighbours

We did not speak to this neighbour

Other Neighbours

We did speak to the neighbour to the second right. He is the builder/roofer who is going to re-roof his roof and may be of great help to you in the future. We would nevertheless still go out for competitive tender.

POINTS FOR YOUR LEGAL ADVISOR

If you wish to proceed with your purchase of the property a copy of this report should be forwarded to your Legal Advisor and the following points should be checked by him/her:

a) Responsibility for boundaries.

b) Rights for you to enter onto the adjacent property to maintain any structure situated near or on the boundary and any similar rights your neighbour may have to enter onto your property.

c) Obtain any certificates, guarantees or approvals in relation to:

i) Timber treatments, wet or dry rot infestations.
ii) Rising damp treatments.
iii) Double glazing or replacement windows.
iv) Roof and similar renewals.
v) Central heating installation.
vi) Planning and Building Regulation Approvals.
vii) Removal of any walls in part or whole.
viii) Removal of any chimneys in part or whole.
ix) Any other matters pertinent to the property.

d) Confirm that there are no defects in the legal Title in respect of the property and all rights associated therewith, e.g., access.

e) Rights of Way e.g., access, easements and wayleaves.

f) Liabilities in connection with shared services.

g) Adjoining roads and services.

h) Road Schemes/Road Widening.

i) General development proposals in the locality.

j) Conservation Area, Listed Building, Tree Preservation Orders or any other Designated Planning Area.

k) Confirm from enquiries that no underground tunnels, wells, sewers, gases, mining, minerals, site reclamation/contamination etc., exist, have existed or are likely to exist beneath the curtilage of the site upon which the property stands and which could affect the quiet enjoyment, safety or stability of the property, outbuildings or surrounding areas.

l) Our Report assumes that the site has not been put to contaminative use and no investigations have been made in this respect.

m) Any outstanding Party Wall Notice or the knowledge that any are about to be served.

n) Most Legal advisors will recommend an Envirosearch or a similar product is used by you to establish whether the area falls within a flood plain, old landfill site, radon area etc. If your Legal Advisor is not aware of Envirosearch or similar please ensure that they contact us and we will advise them of it. Any general findings should be brought to their logical conclusion by using appropriate specialist advisers.

However, with regard to Envirosearch or similar general reports please see our article link on the www.1stAssociated.co.uk Home Page.

o) Any other matters brought to your attention within this report.

LOCAL AUTHORITY ENQUIRIES

Your Legal Advisor should carry out Local Authority searches to ascertain whether the property is a Listed Building and whether it is situated in a Conservation Area. They should also find out any information available with regard to Planning Applications and Building Control. We have not made any formal or informal Local Authority enquiries.

Finally, your Legal Advisor should carry out any additional enquiries they feel necessary and if they find anything unusual or onerous then we ask that they contact us immediately for our further comments.

It is our policy not to offer a conclusion to ensure that the Building Survey is read in full and the comments are taken in context.

If you would like any further advice on any of the issues discussed (or indeed any that have not been discussed!) then please do not hesitate to contact us on

0800 298 5424.

This Report is dated xxxxxxx

REFERENCES

The repair and maintenance of houses
Published by Estates Gazette Limited

Life expectancies of building components
Published by Royal Institution of Chartered Surveyors and Building Research Establishment

Surveying buildings
By Malcolm Hollis published by Royal Institution of Chartered Surveyors Books.

House Builders Bible
By Mark Brinkley, Published by Burlington Press

LIMITATIONS

Our limitations are as the agreed Terms and Conditions of Engagement.

CONDITIONS OF ENGAGEMENT

The report has been prepared in accordance with our Conditions of Engagement dated xxxxxxxx and should be regarded as a comment on the overall condition of the property and the quality of its structure and not as an inventory of every single defect. It relates to those parts of the property that were reasonably and safely accessible at the time of the inspection, but you should be aware that defects can subsequently develop particularly if you do not follow the recommendations.

ENGLISH LAW

We would remind you that this report should not be published or reproduced in any way without the surveyor's expressed permission and is governed by English Law and any dispute arising there from shall be adjudicated upon only by the English Courts.

SOLE USE

This report is for the sole use of the named Client and is confidential to the Client and his professional advisors. Any other persons rely on the Report at their own risk.

ONLY HUMAN!

Although we are pointing out the obvious, our Surveyors obviously can't see through walls, floors, heavy furniture, fixed kitchen units etc. they have therefore made their best assumptions in these areas.

As this is a one off inspection, we cannot guarantee that there are no other defects than those mentioned in the report and also that defects can subsequently develop.

WEATHER

It was dry with sunny spells at the time of the inspection. The weather did not hamper the survey.

In recent times our weather seems to be moving towards the extremities from its usual relatively mid range. Extremes of weather can affect the property.

NOT LOCAL

It should be noted that we are not local surveyors to this area and are carrying out the work without the benefits of local knowledge on such things as soil conditions, aeroplane flight paths, and common defects in materials used in the area etc.

OCCUPIED PROPERTY

The property was occupied at the time of our survey, which meant that there were various difficulties when carrying out the survey such as stored items within cupboards, the loft space and obviously day-to-day household goods throughout the property. We have, however, done our best to work around these.

INSPECTION LIMITED

Unfortunately in this instance our inspection has been very limited as we were not able to open up the ground floor or the first floor.

However we were able to speak to the owners and we are glad that we met you at the property to better understand your requirements.

BUILDING INSURANCE

We do not advise with regard to building insurance. You need to make your own enquiries. Some areas may have a premium, some buildings may have a premium and some insurers may be unwilling to insure at all in certain areas. You need to make your own enquires prior to committing to purchase the

property. Please be aware the fact a building is currently insured does not mean it can be re insured.

We would comment that non-insurability of a building we feel will affect value. It is therefore essential to make your own enquiries with regard to insurance before committing to purchase the property and incurring fees.

ACTION REQUIRED: You need to contact an insurance company today to make enquiries with regard to insurance on this property.

TERMS AND CONDITIONS

Our computer system sends two copies of our Terms and Conditions to the email address given to us when booking the survey; one has the terms attached and the other has links to the Terms and Conditions on our website (for a limited time). If you have not received these please phone your contact immediately.

APPENDICES

1. The electrical regulations – Part P of the Building Regulations
2. Information on the Property Market
3. French Drain Article
4. Condensation and Cold Bridging Article

THE ELECTRICAL REGULATIONS – PART P OF THE BUILDING REGULATIONS

Here is our quick guide to the Regulations, but please take further advice from a qualified and experienced electrician.

From 1st January 2005, people carrying out electrical work in homes and gardens in England and Wales must follow new rules in the building regulations. All significant electrical work carried out in the home will have to be undertaken by a registered installer or be approved and certified by the local authority's building control department. Failure to do so will be a legal offence and could result in a fine. Non-certified work could also put your household insurance policy at risk.

If you can't provide evidence that any electrical installation work complies with the new regulations, you could have problems when it comes to selling the property.

There will be two ways in which to prove compliance:

1. A certificate showing the work has been done by a Government-approved electrical installer - British Gas or NICEIC Electrical Contractor.

2. A certificate from the local authority saying that the installation has approval under the building regulations.

Homeowners will still be able to do some minor electrical jobs themselves. To help you, we've put together this brief list of dos and don'ts.

Work You Cannot do Yourself

- Complete new or rewiring jobs.
- Fuse box changes.
- Adding lighting points to an existing circuit in a 'special location' like the kitchen, bathroom or garden.
- Installing electrical earth connections to pipework and metalwork.
- Adding a new circuit.

INFORMATION ON THE PROPERTY MARKET

We used to include within our reports articles on the property market that we thought would be of interest and informative to you, however we were concerned that in some cases these did not offer the latest information. We have therefore decided to recommend various websites to you, however it is important to realise the vested interest the parties may have and the limits to the information.

www.landreg.org.uk

This records the ownership of interests in registered land in England and Wales and issues a residential property price report quarterly, which is free of charge. The Land Registry is a Government body and records all transactions as far as we are aware, although critics of it would argue that the information is often many months out of date.

www.rics.org.uk

The Royal Institution of Chartered Surveyors offer quarterly reports via their members. Although this has been criticised as being subjective and also limited, historically their predictions have been found to be reasonably accurate.

www.halifax.co.uk and www.nationwide.co.uk

Surveys have been carried out by these two companies, one now a bank and the other a building society for many years. Information from these surveys is often carried in the national press. It should be remembered that the surveys only relate to mortgaged properties, of which it is generally considered represents only 75% of the market. It should also be remembered that the national coverage of the two companies differs and that they may be offering various incentives on different mortgages, which may taint the quality of information offered. That said they do try to adjust for this, the success or otherwise of this is hard to establish.

www.hometrack.co.uk

This gives information with regard to house sale and purchase prices.

www.motleyfool.co.uk

We also like the Motley Fool website which is a general financial site and although it is selling financial services and other services they do tend to give a very readable view of the housing market.

www.rightmove.co.uk

This is probably the largest Internet search engine for estate agency sales and also has useful information with regard to prices of property (but it is not the same as having a chartered surveyor value it).

www.zoopla.co.uk

This is a very good website for seeing the prices of properties for sale in a certain postcode area.

French Drain

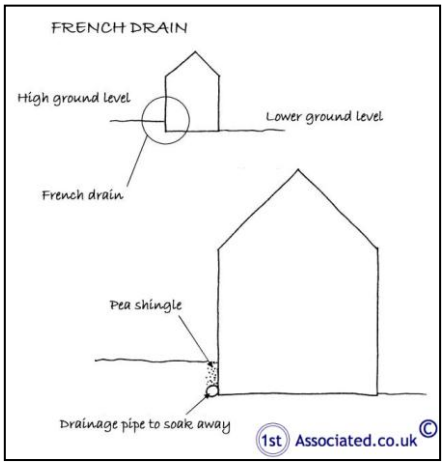
Using a French drain to resolve a dampness problem

We are finding where we are asked to look at damp walls and damp floors or damp problems in general that commonly it is because the external ground level is higher than the internal ground level, or airbricks have been blocked, or simply paving slabs, decking or briquettes have been used to form a patio area. This then discharges any rainwater against the building. Quite often the solution is to add a French drain.

Whilst French drains are quite simple and are basically nothing more than trenches filled with gravel, a although there is a bit more to them, as we will explain, they are almost a D.I.Y. job for most people and they are relatively easy to install and are low cost, However, you do need some care and attention, otherwise you can install what we have heard referred to, as the French pond.

What use is a French drain?

A French drain is a trench, the width of approximately six inches or 300 millimetres wide, or the width of your spade, and is approximately twice the depth, i.e. 12 inches or 300 millimetres. In most cases this will suffice, however, where there is a great deal of ground water you may wish to make the trench wider and deeper.



The French drain acts as an area where water soaks away quickly. We often recommend them close to building, but not next to the building, as this helps reduce the ground level and/or take any water that is directed at that area away. For example, where a patio has been put in place which aims any rainwater at part of the wall. As mentioned, whilst a French drain is a D.I.Y. job, it does need some understanding of how it works.

French drains must be on a slope

The piping that goes at the base of a French drain should be perforated or, as we did years ago for land drains, there should be gaps between each pipe. It should be set onto a bed of firm ground and the pipes should on a fall to the drain. Whilst you should be able to ensure there is enough fall by sight, we also like the idea of rolling a marble from one end to the other.

You will then need to put the pipes down, fill the trench with half an inch, to an inch, of good sized gravel. You can leave it at that, or in addition you can cover with stand and then turf over. This is how a basic French drain is carried out.

The French drain system that we would recommend

This would be as described, although we would add to the base an inch or two of gravel on to which the perforated drainage pipe will rest. It will then wrap around that drainage pipe filter fabric. This is to stop the holes in the perforated pipe from blocking up. By the way, the drainage pipe should be four to six inches/100 millimetres to 250 millimetres. We would then fill with gravel. In addition to this, we would add a silt trap and this is added in the run of the pipe and is very similar to a road gully (not that's of much use if you don't understand how a road gully works). The silt trap is a rectangular box with a pipe opening at each end. The drained water passes onto this and any particles sink to the bottom of the box and then the water travels on to the other side of the box, enabling you to feed into a drain.

These are usually made of glass reinforced polyester and have been available in this form since the mid-1980's. They are normally reinforced with a steel frame for additional strength and re-bedded in concrete.

The French pond!

French drains will, over time, clog up, which is why we recommend using a filter fabric. However, even with this they will eventually clog up. Unfortunately, there is no dino-rod equivalent, as it is normally fine sand, organic matter or clay that has clogged up the French drain. So, it is a case of digging it up and cleaning the pipework (or it may be quicker to just replace it), adding a filter fabric and re-filling the gravel.

Condensation and Cold Bridging
What is Cold Bridging?

Independent Chartered Surveyors solve problems

If you need help or advice with regard to your property
Free phone 0800 298 5424

We are independent Chartered Surveyors who regularly carry out Building Surveys sometimes known as Structural Surveys. Over the years we have come across all sorts of problems. An interesting problem that we are coming across more frequently is Cold Bridging. We can only see this becoming a bigger problem as we insulate our properties more and expect to live in warm tropical climates (inside) and don't understand how our environments and properties work.

We are happy to talk about any property matter whatsoever. Please feel free to phone for a friendly chat. This is just a reminder about our Free phone 0800 298 5424 number. Here is some more information about cold bridging.

What is cold bridging and how does it work?

Cold bridging is a term and a problem we feel will become much more common in years to come. We are finding more and more examples of Cold Bridging. This happens in certain types of property and to some extent it could be argued that it is a characteristic of that type of property and quite a complex issue to resolve. Unfortunately it means condensation is more likely.

Post war / 1950's property that cold bridging can be a problem in.

Cold Bridging

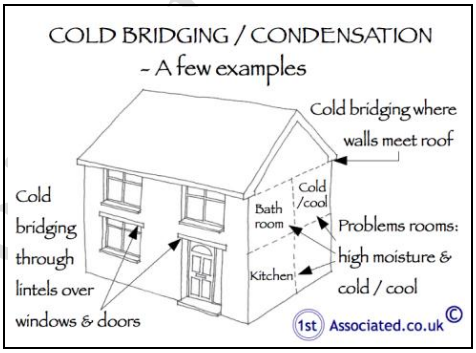
Cold bridging is caused by a colder element in the structure or fabric of the building allowing coldness to pass through. When warm moist air is present in the property and it passes through the colder elements of the structure we have what is known as Cold Bridging. This is often caused by a combination of issues. It can occur from

things such as having a shower or a bath, cooking or clothes washing, particularly if you are drying washing on the radiators. It could, in commercial properties, be a large gathering of people breathing (this can cause a lot of humidity)in a building that has stood cold and empty for some time such as a church, village hall, sports centre or a crèche. These human atmospheres create a climate which can result in condensation on the cold elements of the structure and fabric if the room is not ventilated properly.

Certain types of buildings are more susceptible to Condensation and Cold Bridging

Here is our sketch on Cold Bridging

This is a good indication of the typical things that cause Cold Bridging in a house and how extraction from humidity generating areas such as the kitchen and the bathroom can reduce problems. You do need to look at how you live in the house.



Cold Bridging isn't just about condensation on mirrors

Cold Bridging isn't just about condensation on mirrors. Not only can it be an original characteristic of the building it can be encouraged by all types of extension and alterations.

Cold bridging is far worse than condensation as it is caused by an element in the structure which you can do very little to change without great expense. If you buy a 1960's property for example, with concrete lintels that cause cold bridging, this is a characteristic of the property and it is very difficult to change. However not only could it be a characteristic of the building it could also be caused by alterations that you make to the building.

1960's properties built with concrete lintels that can cause Cold Bridging

To give you some examples of Cold Bridging

As mentioned above typically Cold Bridging can be caused by lintels and also by beams (which effectively are big lintels). These were very commonly used in 1960's and 1970's buildings and can lead to condensation over doors and windows. We mentioned a 1960's building but here are some examples of concrete lintels that were commonly used in the 1970's and which today have caused cold bridging over the door and which in turn has led to condensation and deterioration of the paintwork.

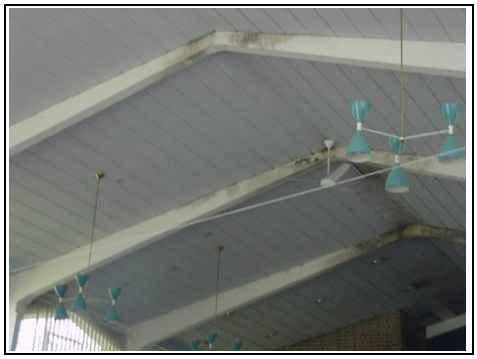
A rear door to a 1970's building. Can you tell where the cold bridging would be in this photo?

A close up view showing there is a concrete lintel over the door and window. This is where the cold bridging occurs causing condensation inside.

Cold Bridging can also occur on metal lintels. We note that some modern metal lintels now have insulation in them which we assume is to reduce cold bridging.

Commercial properties suffer from Cold Bridging too

Commercial buildings are often built using structural frames. These frames are usually constructed of concrete or metal or sometimes both. The structural frame forms the skeleton of the building as you can see in the adjoining photo. Sometimes the structural frames, particularly, the concrete ones can suffer from Cold Bridging which causes blackening of the concrete frame. This can look like the roof has leaked and can lead to wrongly diagnosing a problem as being a



Cold Bridging in a commercial property with a concrete frame.

roof leak This can result in great time and expense being wasted repairing a roof that was not leaking and indeed in some cases has led to a new roof being fitted which has costs tens of thousands of pounds. This happened because it wasn't understood what the problem was.

When is Cold Bridging Likely?

In our experience we have seen cold bridging occurring in

1. Georgian and Regency properties.
2. Victorian and Edwardian properties.
3. Pre-war properties.
4. War years construction properties.
5. Post war construction properties up to the 1980's.
6. Commercial properties that use structural frames particularly concrete frames.

Georgian style properties can suffer from cold bridging and condensation. However in our experience it is more likely to be the new extensions or alterations that are added to them

We find that cold bridging and condensation occur most commonly where a property has a relatively high heating level, a good level of insulation and where it has many occupants.

Post war 1960's properties with plastic double glazing without trickle vents that have been added can cause condensation.

Problems with 1970/1980 era properties relating to Cold Bridging

Let us take a look at the 1970's/1980's era of property to give an example of the problems we have come across with this era.

1970's property with cold bridging to the roof beams and the lintels

The 1970's is an era where we had just begun to think about insulating due to the oil crisis and where we added insulation into our structures

For example with;

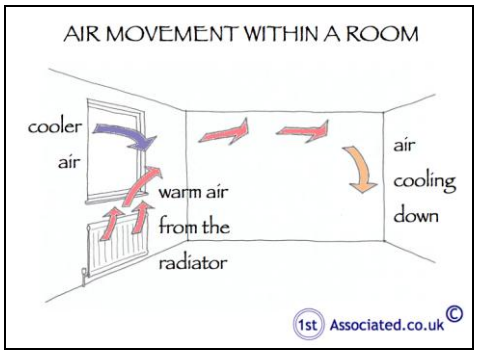
1. cavity wall insulation or
2. double glazed windows.

1980's property, cold bridging was found in the lintels

This meant they were warmer which has meant the significance of a lintel, over a door or window, being colder and allowing the transfer of coldness becomes much more important. This results in condensation that we commonly see above windows in this age and era of property.

How to solve Cold Bridging

The difficulty is resolving cold bridging. Normally, where condensation is involved, if you get the balance of warm and coolness of the air, ventilation and movement you can reduce considerably the chances of condensation. Airing the room by opening the windows, which seems to have gone out of fashion, can help considerably.

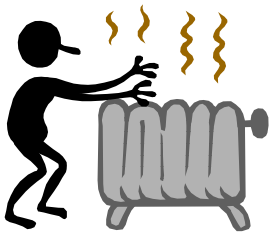


Where do we most commonly find Cold Bridging?

Our thoughts on this have very much changed as we used to say that cold bridging was typically found in properties from the 1960's/1970's. However we are increasingly finding it in a broader range of properties, particularly Victorian properties, where people are trying to live to modern standards of heating and insulation without understanding that the properties need to breathe as well. We have also found cold bridging in properties where extensions have been carried out and where the extension has been built to a different standard to the original property.

Victorian properties that have been extended and altered over the years with new thermal properties that can cause Cold Bridging because of the mix of old and new standards

Is your life style a factor in Cold Bridging?



This is often a contentious and difficult question, particularly where the occupier is a tenant and there is a disagreement between the landlord and the occupier as to why there is mould in the property. In our experience the major factor is the size of the family living in a property. This is especially the case with large families with young children and where in turn there is a lot of washing of clothes being done. This is particularly the case in the winter months, with the wet washed clothes being dried on radiators. Also general hygiene washing and not to mention cooking to feed everyone all lead toward a more humid atmosphere.

This is generally known as the lifestyle of occupants and can be a major factor particularly where there are legal cases as to the problems within a property.

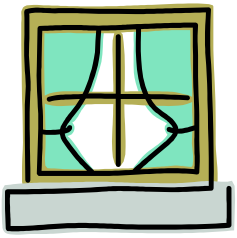
Expert witness case, what is an expert witness?

This is where you employ someone who is a specialist within a field, such as us as Chartered Building Surveyors, who comment on problems of condensation within the

property. We have been involved in several court cases as expert witnesses where landlords are being taken to court over the condensation that is occurring in their property. The expert witness case looks at how this condensation is occurring and if it relates, for example, to the occupiers' lifestyle or whether it relates to the way the building was constructed and where there are, for example, cold bridging elements. When discussions of this nature take place in court they can be very expensive.

Older style London converted flats with property problems such as Condensation and Cold Bridging

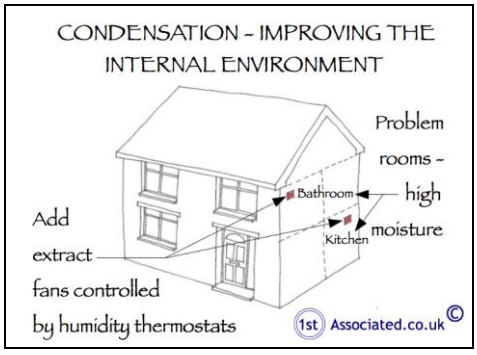
Is Cold Bridging and Condensation a design problem or a lifestyle problem?



This really is a difficult question to answer. We have been involved in a number of cases as expert witnesses or advocates and the answer can vary. We would comment that there are factors that can be changed and factors that can't be changed. For example, the occupiers lifestyle can in most cases be amended. This may involve the occupier having an understanding of the problems they are causing. For example, drying lots of washing on a radiator inside may be causing excessive moisture in the atmosphere. Equally not opening the windows and closing or sealing up vents can be a problem.

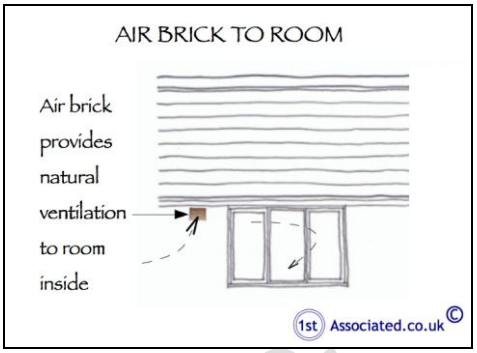
Design of the Building

Sometimes it really is down to the design of the property. Where there are cold elements in it, such as a concrete structural frame or concrete lintels, when these are in contact with moist air condensation occurs. Sometimes this is impossible to stop but often it is possible to reduce it by having a better circulation of air with a better heat and coolness balance and the removal of any moist air.



Things to remember about an air brick

If you are thinking about adding an air brick then you need to be aware that airbricks don't actually allow that much air through. Although externally a nine by three air brick has a lot of gaps, as these gaps taper, it is generally considered that only about one inch square of air regularly passes through the grills.



Air brick may not ventilate room enough

What's happening in brand new housing?

It could be argued that we still do not know what is happening in brand new houses that are highly insulated. We have been involved in one legal case where a modern heat exchange system was being used where it was simply not possible to have a shower in the property without causing condensation, even with the windows open and taking other measures. Our concern is what is happening to this condensation? It was not visible on the surface so is it visible as interstitial condensation? We still think there will be problems to be found in modern properties.

As Chartered Surveyors we like to see things that have been is use for some time work before we would recommend them.

In the winter we have condensation problems but in the summer we don't.

The different seasons mean that the building reacts differently. Anyone who has lived in an old property will know that windows and doors particularly sliding sash windows will swell during the winter months.

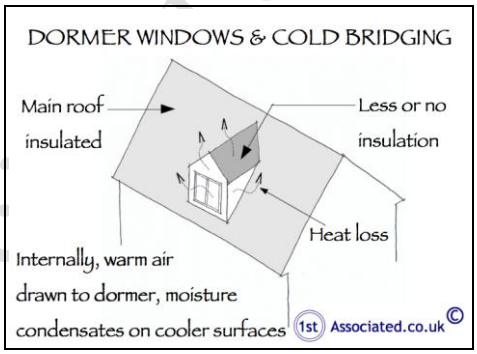
There can be similar issues with a property where, regardless of your lifestyle, during some of the different seasons, for example the winter or a wet

Sliding sash windows can swell in the winter months

spring, taking a shower can relate in condensation even with extract fans running (although this is far less likely).

It also depends on what the humidity level is outside as this can be greater than inside. The moisture/humidity will then seek out colder rooms such as spare bedrooms and the corners of cupboards. When you open these at a later date you will be surprised to find black mould.

Extensions and Cold Bridging.



Increasingly we are coming across problems where properties have been extended and it has not been planned or thought through properly. We have come across dormer roofs that simply have no insulation so any heat in the property is going straight out of the dormer roof. We have also come across property problems where an extension has resulted in colder areas within the property and which although not problem areas, as such, our clients have found them not nice areas to be in. It is not a great outcome if you have just spent tens of thousands of pounds on a new extension that you are not happy with.

A more technical answer

The above article has been written to stimulate debate and discussion. However we are aware from our experience of dealing with these problems, especially when they get into court, that it can be a very emotional subject. We have come across the terms Chronic Damp Conditions and Chronic Condensation Conditions. There is clearly a mismatch in these situations between the building and the lifestyle of the person within. We have come across buildings which have a relative humidity exceeding seventy per cent most of the time and where mould growth can become established. Whilst this is at the extreme end of what we see, it is of course a concern if you are the landlord or tenant with this issue.

<u>Here are some references for you</u>

Landlord and Tenant act 1985 - legislation.gov.uk/ukpga/1985/70The Housing Health and Safety Rating System (known fondly as the HHSRS) - hhsrs.org