JOB REFERENCE: XXXX

RESIDENTIAL BUILDING SURVEY
Non-evasive inspection

XXX
Corby,
Northants
NN17 XXX

FOR

Mr and Mrs X

Prepared by:
XXXX
INDEPENDENT CHARTERED SURVEYORS

Marketing by:

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CONTENTS

INTRODUCTION

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

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:

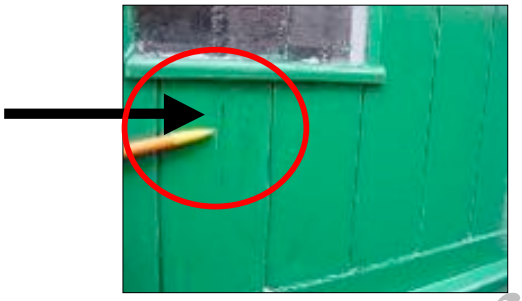
GENERAL/HISTORICAL INFORMATION

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, pen, circle or arrow 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.

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 semi-detached property with an adjoining garage and lean-to link.

The property sits on a corner plot with gardens to the front and a driveway to the left hand side. To the rear is a triangular shaped garden, all sitting on a slightly sloping site.

The house is of a non traditional metal framed construction, we believe, commonly known as a BISF house (British Iron and Steel Federation). There were various different types of these houses:

BISF Type A
BISF Type A1
BISF Type C

There were very few BISF Type A and Type C built, the majority of BISF houses are Type A1. These were built between 1944 and 1950 and were designed by Frederick Gibberd and there are approximately 35,000 known.

The BISF house would have looked quite different when it was originally built with a shallow pitched profile asbestos cement sheet roof with external walls rendered to first floor level and vertical profile steel sheets above this, all on a structural steel frame.

As mentioned we believe this property was built just after the War Years in the late 40's/early 50's when there was a great need for housing and new ways of building were used (known as non-traditional housing) to house everyone. If the exact age of the property interests you your Legal Advisor may be able to find out more information from the Deeds.

ACTION REQUIRED: Your legal advisor needs to check and confirm all of the above.

Putting Life into Perspective!

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

1941	The National Fire Service is established during WWII
1947	The Polaroid camera is invented by Edwin Land, say cheese!
1949	The first non-stop flight around the world without landing
1954	Roger Bannister breaks the four minute mile barrier.
1956	The TV remote control is invented by Robert Adler
1959	UK postcodes introduced after a trial run in Norwich

EXTERNAL PHOTOGRAPHS

Front view

Rear view

Example of original style BISF house

Left gable

Street view

Garage and garden to front

Rear garden

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/stairs
2) Lounge front right
3) Dining room rear right
4) Kitchen rear left
5) W.C. rear left
6) Cupboard area between the house and the garage left

First Floor

The first floor accommodation consists of:

1) Single bedroom front left
2) Double bedroom front right
3) Double bedroom rear right
4) Bathroom rear left

Outside Areas

There are gardens to the front and to the rear with a garage to the left hand side on a slight slope. As this is a corner plot, the rear garden is an unusual triangular-ish shape.

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

INTERNAL PHOTOGRAPHS

Ground Floor

Hallway/stairs

Lounge front right

Dining room

Kitchen

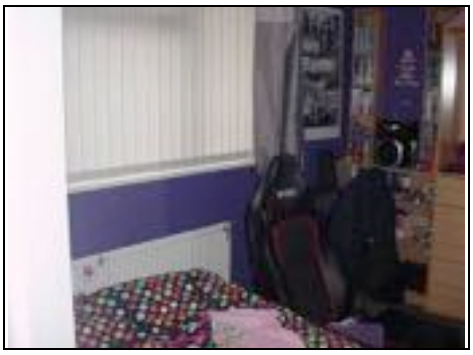
W.C. in outbuilding

Lean-to

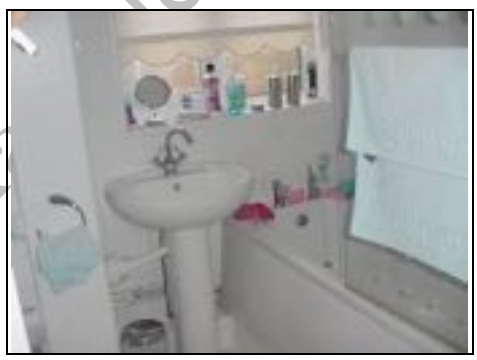
First Floor

Bedroom front left

Bedroom front right



Bedroom rear right



Bathroom rear left

SUMMARY OF CONSTRUCTION

External

Main Roof:	Shallow pitched proprietary prefinished metal profile sheet (assumed, we are unable to confirm 100%). Originally asbestos, we are advised this has been completely removed.
Main Roof Structure:	Tubular metal steel frame
Gutters and Downpipes:	Painted metal/plastic
Soil and Vent Pipe:	Internal
Walls:	Pebbledash rendered panel (assumed)
Structural frame:	Metal frame
Fascias and Soffits:	Painted timber / asbestos / proprietary material
Windows and Doors:	Plastic double glazed windows within a frame

Internal

Ceilings:		Plasterboard or proprietary material
Walls:		Internal: Studwork Perimeter: Dry lined
Floors:	Ground Floor:	Sold underfoot, assumed concrete
	First Floor:	Metal and timber joists with tongue and groove (assumed)

Services

We believe that the property has a mains water supply, mains drainage, electricity and gas (all assumed).

Heating:	There is an Ideal boiler located in the front right bedroom.
Electrics:	The electrics are 1990's and are located under the stairs
Gas:	The consumer unit was located to the front of the property
Drainage:	The manhole is located to the rear of the property

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

ACTION REQUIRED: Your Legal Advisor needs to check and confirm the above and advise us of anything they require further clarification on before legal commitment to purchase the property.

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 150 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!

1.0) Generally non-traditional buildings can be purchased at a lower price than those traditionally built in the area as a whole.

2.0) The property has the benefit of off road parking.

3.0) You have lived in the property for many years and have a right to buy option.

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) Non traditional building
The overview

You need to be fully aware of what you are purchasing. This is an overview:

1.1) Mass Building after the War Years

This house is of a non traditional construction (as opposed to traditional brick, stone, tile or slate buildings).

There were many non-traditional properties built after the Second World War to meet the needs and demands of the population at the time. This immediate need for a large number of houses meant that we looked at how we constructed houses and moved towards more factory type processes.

1.2) Types of non-traditional building and mortgages

There are many different types of non traditional buildings. These are generally split into categories of:

1. Metal frame – a metal frame supporting the structure.

2. Pre-cast concrete - cast in a factory and then brought to the site.

3. In-situ concrete - cast at the site.

4. Timber frame – a timber frame supporting the structure.

Each of these main categories then has many, many different types.

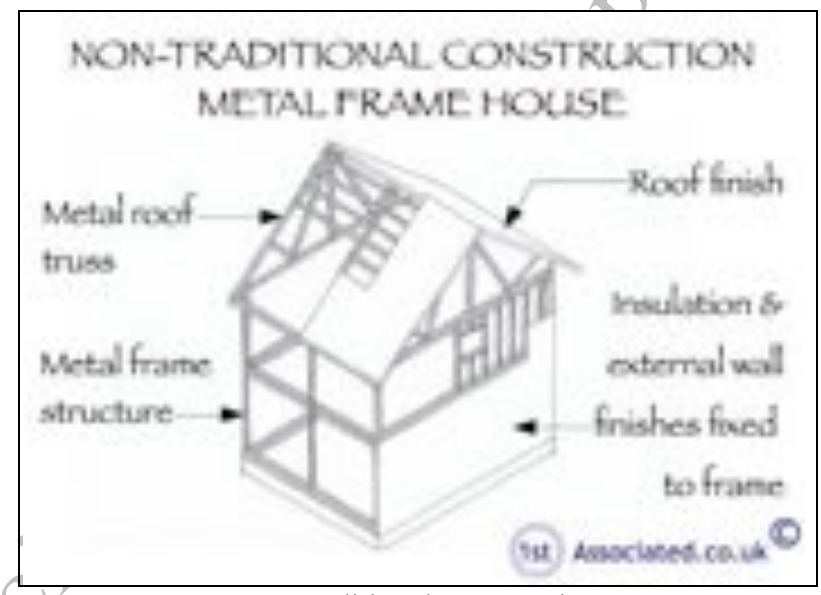
ACTION REQUIRED: You need to be absolutely certain that you understand the risks of buying a non-traditional construction house.

Information available

We have utilised our experience and knowledge of non-traditional property and we have also utilised the Building Research Establishment information data sheet.

1.3) British Iron and Steel Federation houses (BISF)

This is a BISF house which is an abbreviation for British Iron and Steel Federation. A BISF house would look similar to the sketch below if opened up:



Non traditional construction

Please see further information on BISF Houses within the Appendices.

1.4) Construction of this type of non traditional house – BISF House

The original construction of this type of property consists of a metal frame with cladding for the walls internally and externally and the use of asbestos which was a popular material at the time.

BRE Research

The Building Research Establishment often known as the BRE are generally considered to have carried out the best research on this type of construction and have identified the following problems:

Known problem areas

1. Minor to severe corrosion of the rolled steel angle (RSA) and rolled steel channel (RSC) stanchions, particularly at the bases and the corners.

2. Minor to severe corrosion of the sheeting rails

3. Cracking of ground floor slabs, particularly at the corners

4. Corrosion of metal lathing and failure of render

5. Corrosion of profile steel sheets and steel flashings

6. Corrosion of cast iron flue pipes and metal cowlings

7. Deterioration of profiled asbestos cement sheet roof covering. In this case we are advised it has been removed.

It needs to be understood that there are limitations to a visual inspection and you can only see much of the above by physically opening up the structure.

1.5) Is the structural frame sound?

The risk with buying any steel framed property is if the structural frame is sound or not.

ACTION REQUIRED: The only way to see the structural frame is by opening up the structure. This is a non-evasive inspection, our inspection has been based upon a visual inspection. We would be more than happy to open up the structure if so required. You will need to employ a builder who is happy to open up the structure and put back to a satisfactory standard.

ANTICIPATED COST: The builder's hourly rate for approximately 1-3 hours work per area opened up together with any redecoration. If you wish to proceed in this manner please obtain quotes prior to us commencing our inspection to allow you to budget for the cost.

1.6) Key areas on non-traditional buildings

In our experience key areas are generally at ground level, first floor level and roof level where the structural frame is joined together which should be checked for deterioration. Deterioration can be caused by water discharging into the structure or by interstitial condensation. Our inspection has focused via a visual inspection on the roof truss.

1.7) Our comments on the structural frame where we could see it

We examined the roof structure. In this case we specifically were able to view:

1) The roof structural frame
2) The flue within the roof

We would comment as follows:

We found the level of rust to be slightly below average but we would not term this as being bad or excessive.

Rusting within your property which we classify as average to slightly below average.

Example of what we would term as excessive rusting on another property

ACTION REQUIRED: The only way to be 100% certain as to the condition of this structural frame is to open up the structure. As mentioned you will need to obtain permission from the owners to carry out this work but we are more than happy to return and inspect once the structure has been opened up. You need to have a builder close it up satisfactorily.

ANTICIPATED COST: This varies depending upon the problem.

1.8) Long term dangers with Non-Traditional Construction

Most non-traditional buildings have a known list of weak areas as previously stated however we believe (we being the whole of the construction profession) we are still in the early investigation stages of the defect assessments of non-traditional buildings. We believe that the defects visible within properties in the first twenty years will be far different to those visible in the next twenty to forty years and so on. We do not at present have long term information with regard to non-traditional buildings of this type that are one hundred years plus old.

Ironically the use of steel frames within commercial structures, which we also survey, has increased over the years. Having said that, the residential market and the commercial market are viewed very differently by investors and mortgage companies.

1.9) Non-traditional houses, can they be made into mortgageable houses?

As the property is a non traditional construction this does limit companies who will give mortgages on them and as the vast majority of people buy properties with mortgages it limits the market you can sell into.

Some companies do specialise in carrying out work to non-traditional houses to make them mortgageable. We have however found that where the neighbouring property (as you are semi-detached) does not join in with this work there will still be an adverse affect on the property and the property value.

1.10) How does a structural frame property (non-traditional property) work differently to a traditionally built property?

What is known as a traditional construction utilises the walls to give strength to support the roof and the floors. Generally all of the perimeter walls and some of the internal walls are structural walls and they support the roof by universal distributed loads.

In comparison a non-traditional building tends to use a structural frame which in this instance is metal and uses primary and secondary frame members with cladding panels. It could be argued that the structural frame uses point load onto the foundation (very much like a stiletto heel onto a wooden floor).

1.11) Alterations of the original BISF construction

As with a traditional building alterations and extensions are carried out over the years. The owners of this building have made some amendments and adaptions. From what we can see these are:

1) The removal of the asbestos roof and replacement
2) The pebbledash finish to the original cladding
3) Double glazed windows
4) Central heating
5) Adding insulation to the roof
6) Removal of chimney and replacement with boiler and radiator system
7) Cosmetic alterations such as recent new kitchen

We have not got any paperwork in relation to these matters, this is based upon our inspection and our discussions with yourself.

Improvements and interstitial condensation

One of our concerns is that if they have added insulation into the roof and the walls this can lead to condensation and interstitial condensation.

Interstitial Condensation Defined

This is condensation within a material within a roof structure.

ACTION REQUIRED: We would ask specifically that your legal advisors contact the existing owners and obtain a full list of alterations and improvements carried out and specifically ask if insulation has been added in the walls and if any calculations have been carried out in relation to interstitial condensation.

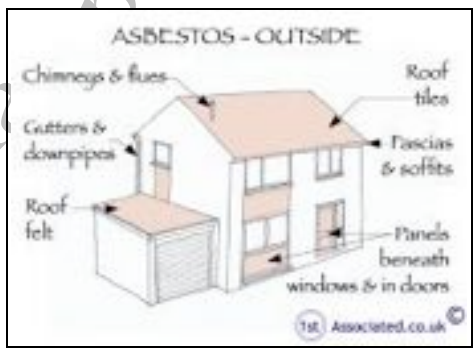
1.12) Owners records

Over the years that we have been dealing with non-traditional housing we tend to find that records kept vary enormously although we would say that local councils and housing associations do tend to have fairly good records if you are making enquiries with the right people.

ACTION REQUIRED: Your solicitor to specifically request in writing a history of repairs and work carried out on the property.

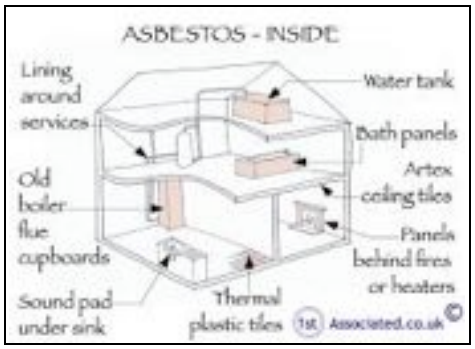
2.0) Asbestos

When this property was built asbestos was a common popular material which was used almost as commonly as wood. As mentioned it formed the roof material and it also generally formed such things as the fascias and soffits, the gutters and downpipes.



Asbestos - outside

The generic sketches show typical areas where asbestos can be found in these properties



Asbestos - inside

Our insurance company requires us to advise we are not asbestos surveyors and advises us to recommend asbestos surveyors are instructed and that you have your own asbestos survey carried out.

Originally many of these properties would have been built with asbestos roofs and asbestos cladding panels. From what we understand from our question and answer sessions with yourselves the asbestos has been removed over the years by the Local Authority.

Flue possibly asbestos

Flue

ACTION REQUIRED: Your solicitor needs to make a formal written request to the Council for confirmation that all asbestos has been removed. If a survey report is not available from the Council the only way to be a hundred per cent certain with regards to Asbestos in a property is to have an Asbestos report with samples taken and the recommended action carried out.

We would always recommend any asbestos is removed from a property as it can not only be dangerous, it can affect the value of the property.

ANTICIPATED COST: Asbestos costs can vary considerably; we are forever surprised at the variety in quotes. We would anticipate costs in the region of £250 - £500. Please obtain quotations.

Please see the Other Matters Section of this Report.

3.0) Metal roof truss

We have examined the steel tubular framework that forms the roof structure truss and found it to be in average condition for this age, type and style of property. We could see and feel that it had rust which is patchy. None of the areas we inspected we would term as structurally affecting the property at present.

Tubular roof system and timber batons

We feel that the over insulation of the roof and the lack of ventilation to the roof has helped cause the situation where condensation is being caused within the roof.

Checking for rust

ACTION REQUIRED: We would recommend that the existing insulation is all removed and new insulation is put in the roof to current standards of 300mm (you currently have in excess of this in many areas).

ANTICIPATED COST: £250 - £500; please obtain quotations.

Mass of insulation

ACTION REQUIRED: We recommend that the fascias and soffits are removed or repaired and add vented soffits.

ANTICIPATED COST: £1,500 - £3,000; please obtain quotations.

Note; the fascias and soffits may be asbestos. We would recommend an asbestos survey is carried out and that you review the asbestos survey first before carrying out such work.

Please see the Roof Structure Section of this Report.

4.0) Gutters and downpipes maintenance

The property has metal and plastic gutters and downpipes. It is very important in this type of building that gutters and downpipes are maintained as leaking gutters and downpipes can affect the metal structure.

Gutters and downpipes

From what we could see the gutters and downpipes looked in reasonable condition however you can never be too careful on this type of property.

ACTION REQUIRED: We would recommend that the gutters and downpipes are checked and cleared of any debris and also inspect to ensure that the joints to the gutters and downpipes are not leaking and that they fall towards the downpipes and are watertight.

ANTICIPATED COST: £1,500 - £3,000; please obtain quotations.

Please see the Gutters and Downpipes Section of this Report.

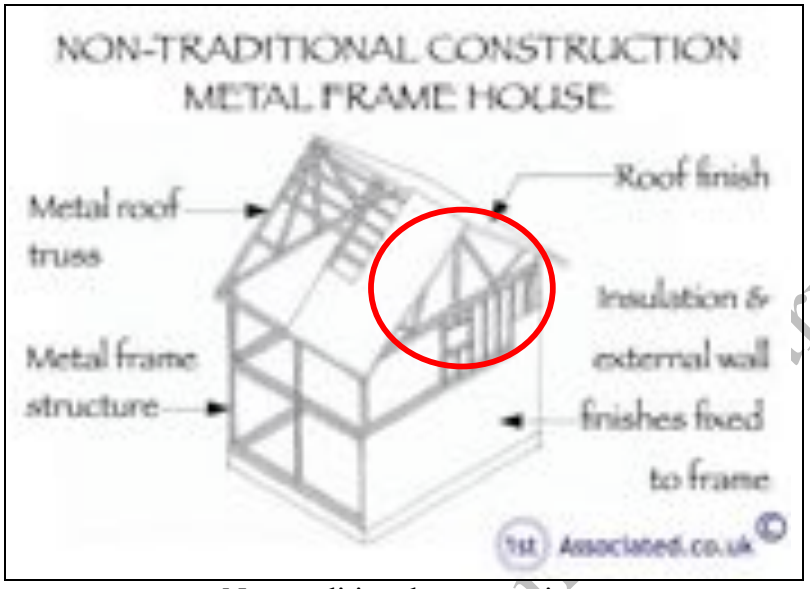
5.0) Walls

The walls have a pebbledash overcladding finish. We have inspected the walls and found no significant areas of cracking. We specifically looked at:

1) Around the windows
2) To the base of the property
3) At first floor junction levels

Movement joints within the panel construction that have been added

We have included the sketch again as a reminder of the structural frame:



Non traditional construction
(roof void circled)

Original construction of this property would be a metal frame with an asbestos metal cladding at high level with a rendered cladding at low level, none of which is now visible.

Originally the property would have had profile metal cladding as per this example

ACTION REQUIRED: Your legal advisors to write to the Council to confirm that all asbestos was removed and to confirm what construction the walls now consist of.

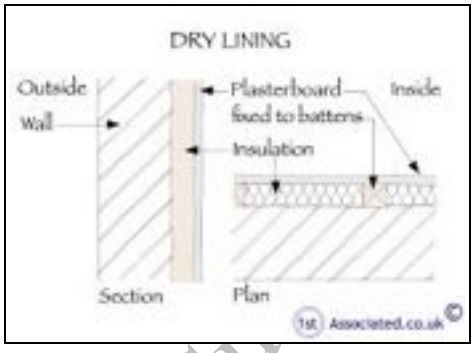
We would be more than happy to comment upon their response. Please forward information to us via email.

Please see the Walls Section of this Report.

Fixing points in the roof void that have come through the cladding that has been added

6.0) Internal cracking

We noted cracking between the wall and ceiling structure and to the perimeter wall which is dry lined to the front right hand bedroom. This, we believe, may relate to differential movement and thermal expansion caused by the relatively poor air movement in the property.



Dry lining

Cracks corner of walls to ceiling

Crack corner of walls

Crack in boarding

ACTION REQUIRED: Improve moisture removal and air movement in the property and add large humidity controlled extract fans venting to outside air in the bathroom and kitchen. In the kitchen we appreciate you have had a newly installed extract fan, this is a modern smaller variety and is not, from what we can see, automatic or moisture controlled.

Extract in kitchen

ANTICIPATED COST: We would anticipate costs between £150 - £250 per extract fan depending upon the wiring required; quotations required.

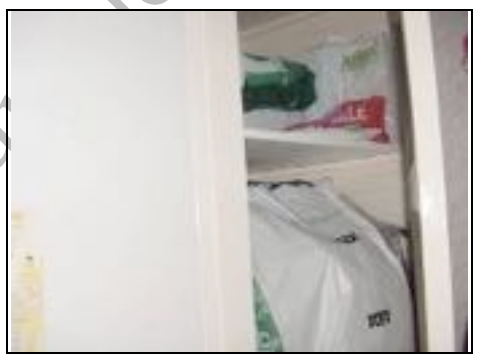
Please see the Ceilings and Walls Section of this Report.

7.0) Surface condensation and interstitial condensation

As the property currently stands there is a likelihood of condensation in this type of property. Surface condensation is the type of condensation that we can see which relates to things such as steaming up of the mirror in the bathroom but it is the interstitial condensation that needs to be reduced. This is why we would recommend large humidity controlled extract fans are added.

Vent in bathroom

We also note there are high level vents in some of the rooms. If the large humidity controlled extract fans do not successfully remove the moisture then we would recommend these are opened up.



No visible signs of black mould within unventilated cupboard

ACTION REQUIRED: Add large humidity controlled extract fans to the kitchen, bathroom and humidity creating areas.

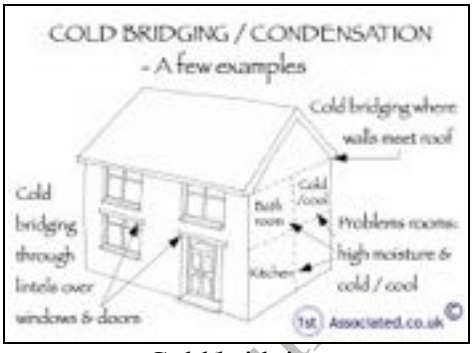
ANTICIPATED COST: We would anticipate costs between £150 - £250 per extract fan depending upon the wiring required. Please obtain quotations.

Old vents to rooms that are now blocked

Please see the Dampness Section of this Report.

8.0) Thermal/cold bridging

As with most properties of non-traditional design this property is likely to have thermal bridging also known as cold bridging.



Cold bridging

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.

Surface temperature reading at high level in dining room

Surface temperature reading at low level

ACTION REQUIRED: This needs to be considered a characteristic of this type of property. Please refer to our Energy Efficiency Section of the report and the article in the appendices.

9.0) Decent Homes standard

The Government has set a target to ensure that all social housing meets the Decent Homes Standard. Social housing means homes that are owned by your local authority or a Registered Social Landlord (RSL).

A decent home is one that is wind and weather tight, warm and has modern facilities.

The basic principles of the Decent Homes Standard are:

1) It must meet the current statutory minimum standard for housing
   Homes below this standard are those defined as unfit under section 604 of the Housing Act 1985 (as amended by the 1989 Local Government and Housing Act)
2) It must be in a reasonable state of repair
   Homes which fail to meet this standard are those where either:
   one or more of the key building components are old and, because of their condition, need replacing or major repair; or
   two or more of the other building components are old and, because of their condition, need replacing or major repair
3) It must have reasonably modern facilities and services
   Homes which fail to meet this standard are those which don't have three or more of the following:
   reasonably modern kitchen (20 years old or less)
   a kitchen with adequate space and layout
   a reasonably modern bathroom (30 years old or less)
   an appropriately located bathroom and WC
   adequate insulation against external noise (where external noise is a problem)
   adequate size and layout of common areas for blocks of flats
4) It provides a reasonable degree of thermal comfort
   This means that your home must have both effective insulation and efficient heating

You can find a full definition of the Decent Homes Standard on the Communities and Local Government website.

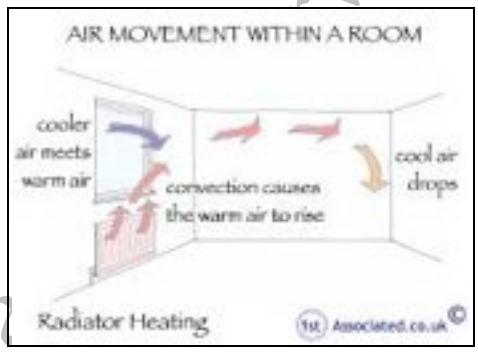
Website: Communities.gov.uk/decenthomes

ACTION REQUIRED: This needs to be considered a characteristic of this property.

10.0) Services

10.1) Air movement

Since this property was originally built the level of air movement in it has changed considerably. This has been due in part to the alterations that have been carried out, specifically:



Air movement

1) the removal of the fire
2) the adding of central heating
3) the changing of the windows to plastic double glazed windows (without trickle vents)

With a reduced air movement in a property and higher insulation levels and higher heating levels you are more likely to get an element of condensation. This is why we have recommended large humidity controlled extract fans.

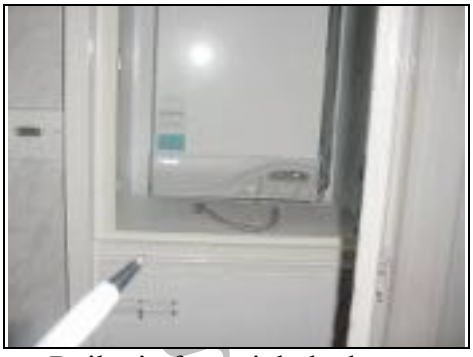
ACTION REQUIRED: We would recommend:

1) Large humidity controlled extract fans
2) Move any internal radiators to underneath the windows where possible to promote air circulation.

ANTICIPATED COST: £100 - £200 per radiator; please obtain quotations.

10.2) Boiler in the bedroom

The boiler is situated in the front bedroom. We are not particularly keen on boilers in bedrooms as they can be noisy.


Boiler in front right bedroom

ACTION REQUIRED: We would look at relocating this to the kitchen area or possibly into the roof although we would prefer the kitchen area as the boiler could help cause condensation if it is positioned in the roof.

ANTICIPATED COST: £750 - £1,500; please obtain quotations.

Please see the Services Section of this Report.

The Ugly

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

Whilst we would not consider there to be any Ugly elements you do need to be aware of the information and facts in relation to a Brinish Iron and Steel Federation non-traditional house.

1. You need to fully understand what you are purchasing

You need to be absolutely certain that you understand you are buying a non traditional building and the associated issues that can go with these inherent problems and also when you come to sell the property.

2. Double check the purchase price

We recommend that you double check that you are purchasing this property at the right price and take into account the items that we have identified and you also need to double check that you are paying the right price for a non-traditional building.

Other Items

Moving on to more general information.

Extension to the side

You do have the opportunity to extend to the side. Please note that the extension needs to be carried out in an appropriate manner to marry with the non-traditional steel framed structure otherwise you can have differential movement between the two structures.

Maintenance

There is the basic maintenance that you would associate with any building such as clearing gutters, checking that the gutters are not leaking and are falling towards the downpipes and redecoration etc. A budget for such work must be allowed to ensure it is maintained in a good condition. This will prevent undue and unnecessary deterioration.

With a non traditional building you may also have deterioration occurring that there is little that you can do about as it is part of the structure.

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

We were pleasantly surprised with the relatively new electrics. We are advised these were carried out in around 2010/2011. The Institution of Engineering and Technology (IET) recommend a test and report whenever a property changes occupancy. This should be carried out by an NICEIC registered and approved electrical contractor or equivalent.

> **ACTION REQUIRED:** Obtain a copy of the owners electrical certificate.

Heating

We are advised that the heating was recently carried out in 2009.

We would 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.

Drainage

Whilst we have lifted the manhole cover to the rear of the property the only true way to find out the condition of the drains is to have a closed circuit TV camera report to establish the condition of the drains. In this age of property there have often been leaks over the years.

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. 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 £125 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 writing 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 would reiterate our comments that you need to be absolutely certain that you understand you are buying a non traditional building and the associated issues that can go with these inherent problems.

You should also be aware that a non-traditional property may be more difficult to sell than a traditional built property.

Even though you are familiar with the property, having rented it for many decades, you need to be aware that mortgage companies and valuers look at these properties in a completely different light.

When you do come to sell you need to be aware that you will have problems with interested parties not being able to get mortgages. We have no way of crystal ball gazing to advise how the market is likely to be in the future, all we can say from our experience in the past is that regulations for what you can and cannot lend on and the criteria is generally getting stricter as years go by.

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.

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

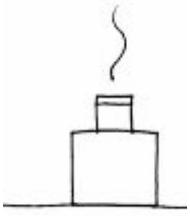
This report is being carried out under our terms of engagement for Building Surveys, as agreed to and signed by yourselves. If you have not seen or are not happy with the terms of engagement please phone immediately 0800 298 5424 or email the secretary from which this survey came from.

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



FLUES

Flues

Flues offer ventilation to things like boilers and soil and vent pipes and usually come through the roof covering, which can often also be a weak area.

The property has two flues. It has a metal flue where visible within the roof, these were originally asbestos.

Flue

Flues

Possible asbestos to flue

Flue

New flue for boiler

Party Walls

Party wall

The party wall relates to shared items, such as the blockwork firewall to the right hand side (all directions given as you face the front of the property). 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

Specifically in this case we would comment that we don't know what the construction behind is without opening up the structure

Finally, we have made our best assumptions on the overall condition of the flues from the parts we could see. 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 a protective underlayer may or may not be present, please read on:

We will consider the roofs in three areas, the main roof, the rear single storey roof to the W.C. and the polycarbonate roof to the lean-to.

Main Roof

Originally the main roof was asbestos, we are advised this has been completely removed.

Main roof

The main roof is difficult to view due to the shallowness of the roof however we believe it is a shallow pitched proprietary prefinished metal profile sheet. From ground level, this looks in average condition considering the roofs age type and style.

Problems with shallow roofs

Shallow roofs do get condensation which is why we are recommending that you have vented soffits.

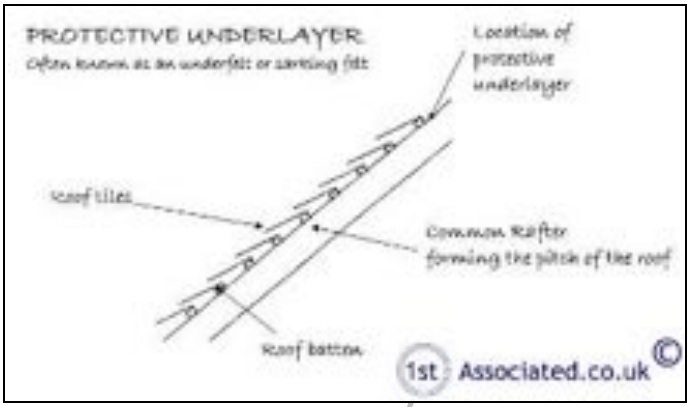
We do find that this type of roof weathers and you can almost get areas where the metal shines through.

Roof difficult to view but we are advised they have been replaced by the council

ACTION REQUIRED: Carry out periodic inspections and maintenance of the roof, as required.

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.



Protective underlayer

When we inspected the loft space we found a Hessian base Bitumen membrane. This type of membrane has been used since the 1960s. We generally found it to be in average condition, with damage in some areas which is what we typically find.

This photo shows the common rafters (the ones that form the pitch of the roof) and the dark area between is the underlayer.

Low Level Roof to rear

We believe this is a shallow pitched proprietary prefinished metal profile sheet roof.

W.C. roof

Polycarbonate roof to lean-to

The lean-to has a polycarbonate roof. Generally we find that these leak. As you live in the property you are probably more aware of this than we are from a one off inspection. We would also say that they can also get condensation where you have such things as washing machines and kitchens nearby.

Lean to

Polycarbonate Defined

Transparent, extremely tough plastic sheet, used for security glazing. It may also be an insulating light panel, double walled or triple walled, or 10 or 16mm thick. It is not a fire hazard as it has low ignitability and low flame spread, and releases little heat and little smoke if burnt. It can be coated to resist damage from ultraviolet.

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 forty 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 a loft ladder, electric light and secured floorboards. The insulation is over the joists so you need to take extra care when in the roof.

The loft perimeter has been viewed by torch light, which has limited our viewing slightly.

Roof Structure

This type of roof structure on a non traditional house has a metal truss and purlin system using tubular metal for strength. In this case it has a tubular metal steel frame.

Roof Truss

We have inspected the roof truss for:

1. Structural cracking
2. Rusting
3. Distortion

Tubular roof system and wooden batons

ACTION REQUIRED: The only way to be 100 per cent certain is to have the roof cleared and checked. Please see our comments in the Executive Summary.

Fire Walls

The property has a blockwork firewall which is located to the right hand side (all directions given as you face the property). The firewalls are also Party Walls.

Fire Walls Defined

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

Blockwork firewall to right hand side

Water Tanks

The property has a plastic water tank.

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

We would recommend the roof is vented by the adding of additional roof vents and a vented soffit board (when the fascias and soffits are replaced).

Vent to roof

Insulation

The loft is over-insulated. Please see the Thermal Efficiency Section of this Report.

> **ACTION REQUIRED**: Remove and replace with a modern 300mm insulation.

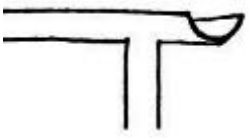
Electrical Cables

We can often identify the age of an electrical installation by the age of wiring found in the roof. In this case we could not see it due to the mass of insulation.

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

The property has painted metal and plastic gutters and downpipes and are fairly typical of what we see, they are in average condition for their age, type and style.

Metal gutter and plastic downpipe

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.

Downpipes feed directly into the ground

The downpipes feed directly into the ground so if there is a blockage then the drain would have to be opened up. This is a practice we are not particularly keen on; we would much prefer a gulley.

Downpipes feed directly into the ground

ACTION REQUIRED: Please see our comments in the executive summary.

We would always 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 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.

Soil and Vent Pipe

We assume the soil and vent pipe is internal.

Finally, gutters and downpipes 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 property is constructed in a metal structural frame clad with pebbledash rendered panel and clad internally which means you cannot see the condition of the structural frame within without opening up.

Whilst this looks like a traditional house it acts far differently as it has a structural frame from which elements are clad onto. In theory these could be removed (and some people do remove them) and replaced with other materials.

Originally this property would have had profile metal to the first floor level as in the photos.

Originally the property would have had profile metal cladding as per this example

Example of metal cladding on a BISF house

Non traditional building

Sorry to repeat ourselves but this really is so important; this house is of a non traditional construction commonly known as a BISF house which stands for British Iron and Steel Federation who manufactured this type of house system. It was one of the more popular types. This type of system build house effectively means the building is built on a foundation with a structural frame and then cladding added to the roof and to the walls.

Non traditional construction

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

Structural frame

Please see our Executive Summary which refers you to the limitations we have of viewing the structural frame.

Cladding

The property is clad in pebbledash rendered panels which have been added by the council/owners in recent times.

Movement joints within the panel construction that have been added

External cladding

Insulation?

We do not know if insulation was added when the cladding was added without opening up the structure

Internal cladding

Plasterboard/propriety board or possibly asbestos.

Opening up

We would be more than happy to view the structure if it was opened up. This is the only way of being conclusive.

ACTION REQUIRED: Your solicitor to make written enquiries to the council as to the construction and to whether insulation has been added and whether there is any asbestos content in the property as a whole.

Gable end wall to left

The only place that we could see the wall construction is to the gable end to the roof which was metal cladding.

Metal gable end to left

Close up

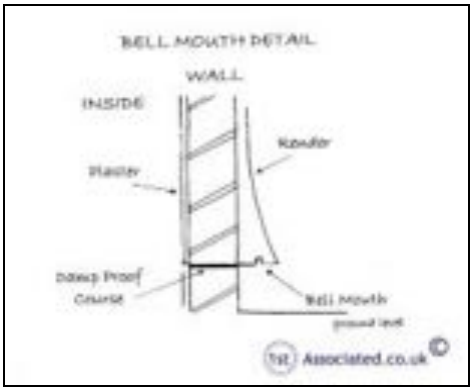
Cracking

Cracking was visible internally to the front but none visible externally.

Close up of render

Bell mouth to base of property

To the base of the render there is typically no bell mouth detail to pebbledash render as there is on normal render although there is a step in.



Bell mouth detail


Step in

Cold Bridging

As this property has a metal structural frame and various other metal elements it may suffer from cold bridging. Please see our general article on Cold Bridging within the Appendices but this property has very specific problems due to the metal frame and condensation occurring on it.

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.

Cold bridging / thermal bridging

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 render / cladding we cannot comment on their construction or condition. In buildings of this age concrete 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 cladding / render has been finished. We have made various assumptions based upon what we could see and how we think the cladding / render 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 combination of the trench filled concrete that is typical plus incorporating a ground floor slab, much like a raft foundation.

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.

Cracks

No cracks noted in the new external cladding.

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 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.

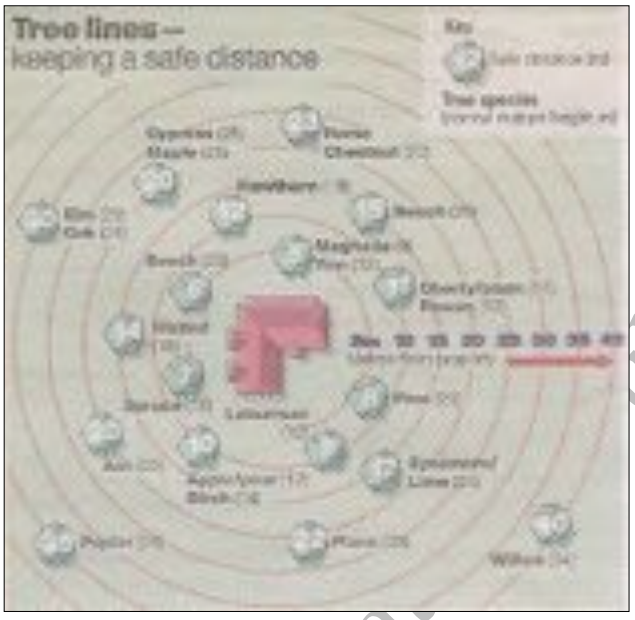
We would always recommend that you remain with the existing insurance company of the property.

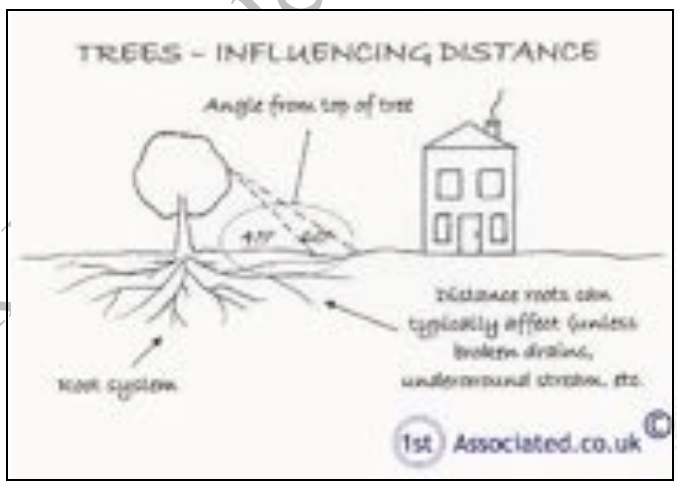
As no excavation has been carried out we cannot be 100 percent certain as to how the foundation has been constructed and we can only offer our best assumptions and an educated guess, which we have duly done.

TREES

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 we would term as influencing distance but you do need to speak to your insurance company as they may have a different interpretation for insurance reasons.





Influencing distance of trees to a property

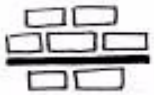
Influencing Distance Defined

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.

Finally, insurance requirements with regard to trees have varied over the years and in our opinion have got ever more onerous. We have seen the notifiable distance of a tree away from a property to have been reduced over the years and we reiterate our comments elsewhere within this report that you need to make enquiries with regard to the insurability of your property in relation to trees and other features when you purchase the property.

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 cannot see a DPC which we generally are unable to see when there is render.

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

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.

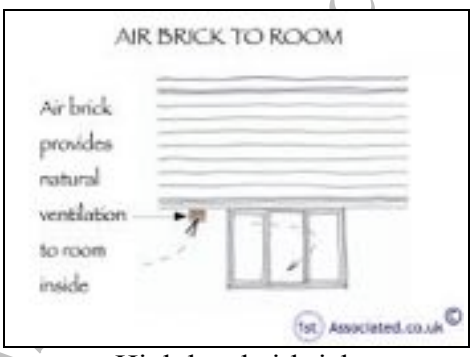
Low Level Air Bricks

Air bricks are essential to have a through flow of air. We noted one vent. Please see foundations section.

Vent under building

High Level Air Bricks

There are vents at high level. High level air bricks are to help air circulation within the property. These were particularly useful when the properties had the older style metal windows, which used to condensate.



High level airbrick

Old vents to rooms that are now blocked

ACTION REQUIRED: Ensure the airbricks are clear and in working order.

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 walls/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.

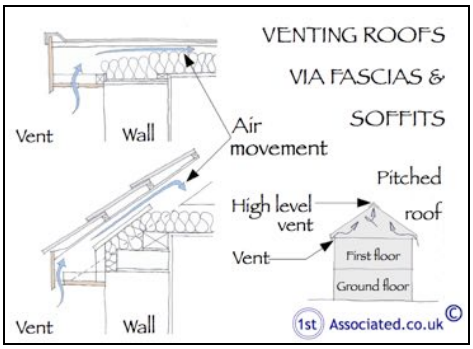
Fascias and soffits offer protection to the rafter feet and also allow the securing of the guttering. Windows primary functions are to admit light and air, but they also have thermal and sound properties. The doors allow access and egress within the property.

Fascias and Soffits

The fascias and soffits are painted timber or asbestos.

Fascias and soffits unvented

ACTION REQUIRED: We would recommend that the fascias and soffits are removed and replaced with vented fascias and soffits. Note the fascias and soffits could be asbestos so you do need to carry out an asbestos survey first.



Venting roof via fascias and soffits

Windows and Doors

The property has plastic double glazed windows set within a frame, which forms a drip detail. There are no sills to some of the windows therefore pattern staining can occur around the windows without sills.

Frame around window

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.

No sill to front window

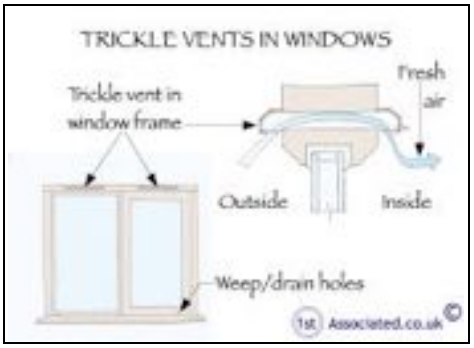
Transferable Guarantees

Although these windows are old enquiries should be made as to the existence of any transferable guarantees by your legal advisor. Generally it is considered that double glazed units have a life of about ten years.

Trickle vent to windows

Trickle Vents Defined

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



Trickle vents

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.

External decoration is required to the fascias and soffits (which we are recommending are replaced) and also to the window surrounds.

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.

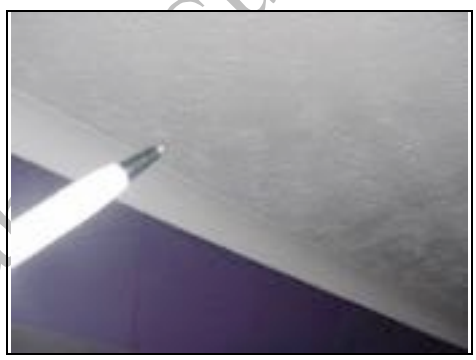
INTERNAL

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

From our visual inspection of the ceilings and our general knowledge of this age and type of construction we believe that the ceilings are likely to be plasterboard or there may be proprietary boarding as this was fairly common in this era of property.



Modern textured paint ceiling (commonly known as artex)

Plasterboard Defined

The usual name for Gypsum plasterboard which is building board with a core of aerated gypsum, usually enclosed between two sheets of heavy paper, used as a dry lining.

Plasterboard Cracks

There are cracks between the walls and the ceiling in the front bedroom.

This is quite a common occurrence in older properties, brought about by differential movement in the structure to what the plasterboard can cope with. Normally textured paint (commonly known by its trade name of artex) is used to cover this as we assume in this instance.

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

Internal Walls and Partitions

Three types of internal cladding were used in BISF properties namely fibreboard, hardboard or stramit board linings (as taken from the BRE guidance notes).

Alteration to form arch between dining room and lounge

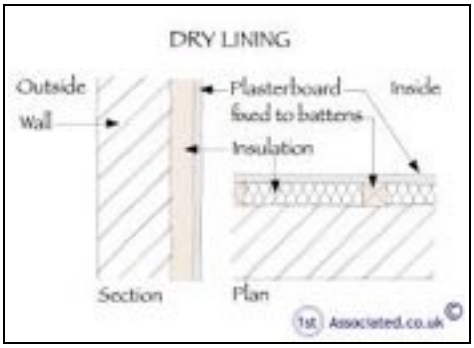
Stramit board defined
Straw like board. The main problem with stramit boards are that they are not keen on water and tend to lose their structural integrity with water.

It is of course impossible to determine the construction without opening up the walls and we have therefore taken an educated guess as this is typical in this type of BISF construction. We do believe that in some cases asbestos has been used for the walls.

Perimeter Walls

These are, we believe a structural frame with dry lining also known as a false wall. Three types of internal cladding were used in BISF properties namely fibreboard, hardboard or stramit board linings (as taken from the BRE guidance notes).

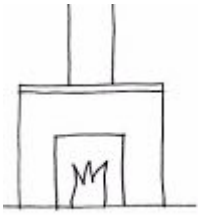
We cannot be 100% certain of the wall construction without opening them up which goes beyond the scope of this report.



Example of dry lining sketch. Not 100% correct in this case but hope it helps

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.



FLUES

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

The flue was visible in the roof space and was partly rusting and partly looked to have been replaced we assume when the new boiler went in. As the property is rented then it should have been checked and records should be available which you will be aware of as you live in the property.

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.

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 floors felt solid under foot so we have assumed that they are constructed with a concrete perimeter with a raft foundation. It may have a hollow area underneath as we can see a vent.

Vent under building

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

First Floor

We have assumed that the first floor construction is metal and timber joists with tongue and groove, as this is typical in this type of property.

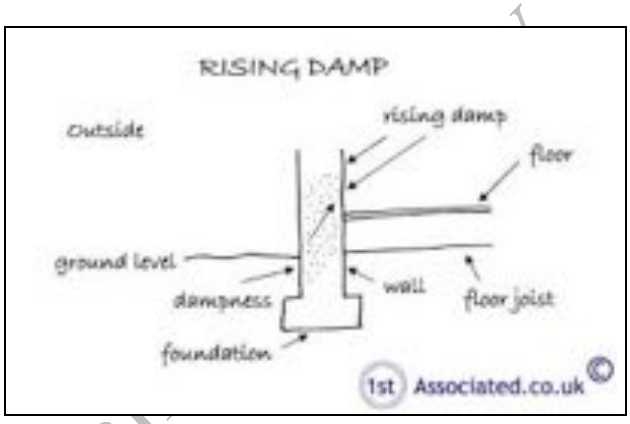
Finally, we have not been able to view the actual floors themselves due to them being covered with fitted carpets, floor coverings, etc. The comments we have made are based upon our experience and knowledge of this type of construction. We would emphasise that we have not opened up the floors in any 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. Much evidence points towards there being true rising damp in only very rare cases.



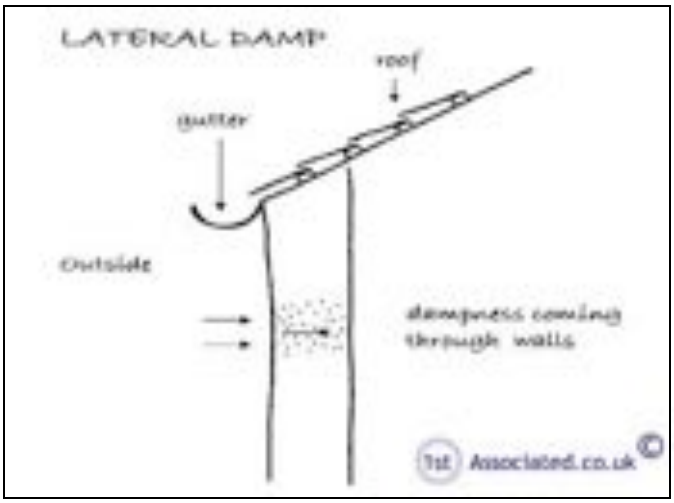
Rising damp

A random visual inspection and tests with a moisture meter have been taken to the perimeter walls. In this case we were unable to take readings due to the dry lining.

Testing for rising damp

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.



Lateral damp

We used a resistance meter on the external walls. Our meter readings indicated that it was dry lined.

Testing for lateral dampness

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. Typically condensation will be worse in the humidity creating areas such as the kitchen and bathroom and any cold areas such as outside w.c.'s and any rooms that you typically dry washing in.

However, it 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, cooing and ventilation of properties and opening windows to air the property regularly.

Extract fans in kitchens, bathrooms and drying areas

A way of helping to reduce condensation is to have good large extract fans with humidity controlled thermostats within the kitchens and bathrooms and also in any areas where you intend to dry clothes which are moisture generating areas.

> **ACTION REQUIRED:** We would recommend large humidity controlled extract fans be added to kitchens, bathrooms and drying areas. Please see our comments in the Executive Summary.

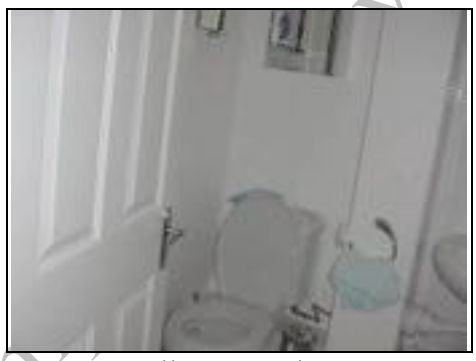
Finally, effective testing was prevented in areas concealed by heavy furniture, fixtures such as kitchen fittings with backboards, wall tiles and wall panelling. We have not carried out tests to BRE Digest 245, but only carried out a visual inspection.

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 property has hollow core doors (sometimes referred to as egg box doors, as this is what the internal of them looks like when they are opened up), they have a paint finish and are slightly marked but nothing unusual.



Hollow core doors

Staircase

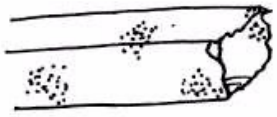
We were unable to examine the underside of the stair timbers due to it being lined, which precluded our inspection, so we cannot comment further upon the stair structure. We can, however, say that the lining gives a resistance to the spread of fire if such circumstances were to occur.

Kitchen

We are advised the kitchen was installed in 2014. We have not tested any of the kitchen appliances.

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 overview 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.

As this is a steel framed building it doesn't rely on timber in the usual way and as such the likelihood of dry rot and wet rot that causes structurally significant damage is considerably reduced, some would argue almost eliminated altogether. However we still do check for dry rot and wet rot.

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.

Dry rot is unlikely as most of the timber elements have been removed and replaced with a metal structural frame or cladding panels. We would advise that the only timber we have seen is the timber batons in the roof and these have not had any deterioration.

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.

Wet rot can occur in this type of building, for example to fascias and soffits but it does depend on whether they are made in timber or a proprietary material or asbestos. Note, we are recommending their replacement.

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.

In a non-traditional building we look in both the roof and at the floors where we can view them to see if there is any woodworm. Woodworm isn't a common problem as the main structure is in steel. In this instance we didn't note any woodworm.

The roof is the main area that we look for woodworm although the main timber is the common rafters as the roof truss itself is metal. 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, 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 average condition.

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.

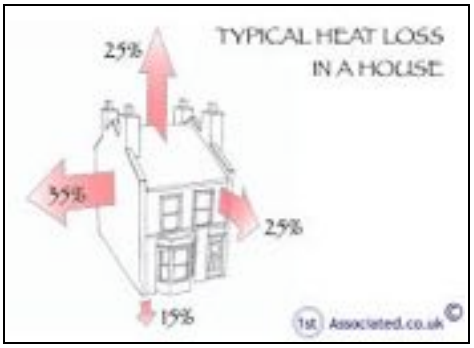
THERMAL EFFICIENCY

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.

Roofs

Current Building Regulations require 300mm of insulation. In this instance we noted in excess of 300mm, if anything there is a likelihood of condensation.

Mass of insulation



Typical heat loss

ACTION REQUIRED: We would recommend the removal of the insulation and re-laying it to 300mm maximum plus adding ventilation. In this type of property you have to be very careful if you insulate not to create a condensation situation as this is when we feel you get most accelerated rusting and deterioration to the roof frame and the structural frame.

Walls

The walls to this property are pre-fabricated and from our understanding did not originally have insulation, unless this has been added at a later date.

> **ACTION REQUIRED:** Your Legal Adviser to specifically request in writing any information in relation to insulation.

Windows

The windows are double glazed and therefore will have reasonable thermal properties.

Services

The boiler is relatively new. Service records should be kept by the owners. 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. Please note we have not seen the Energy Performance Certificate.

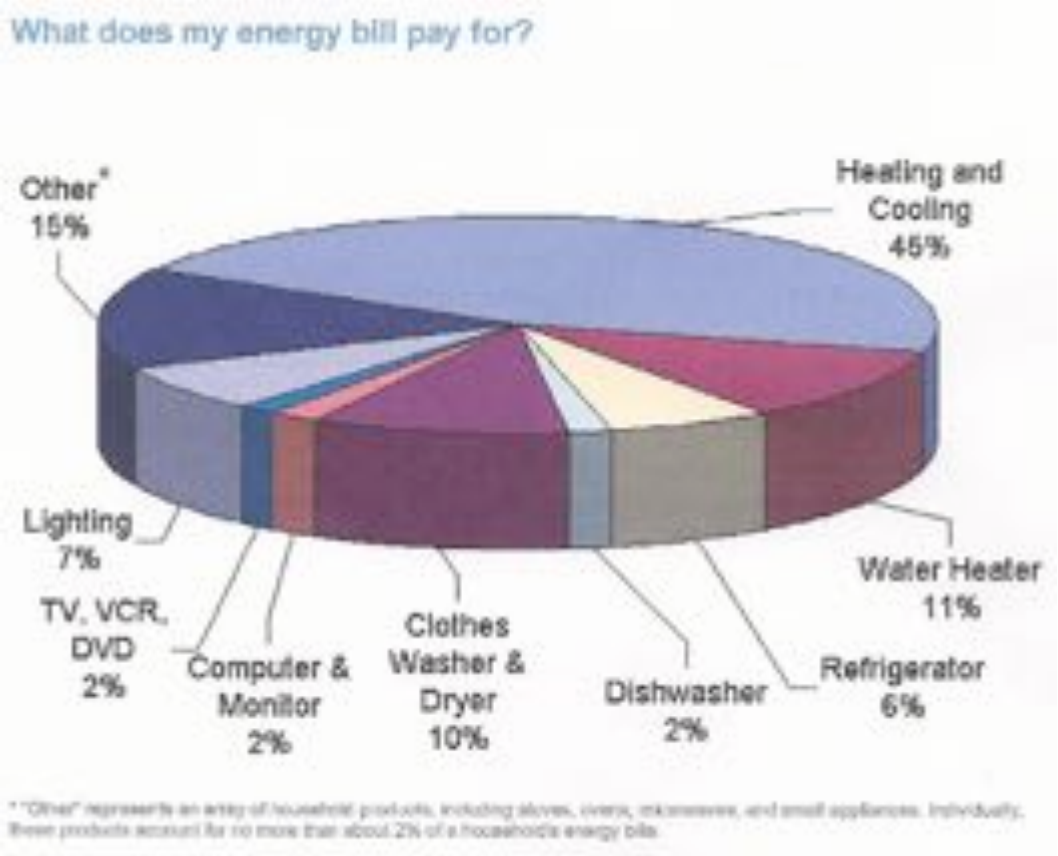
Further information can be obtained with regard to energy saving via the Internet on the following pages:

> *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 (Centre for Alternative Technology)*
>
> *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 – can be viewed on YouTube*

HIPs

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

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.



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 we believe these to be battery operated. The current Building Regulations require that they be wired into the main power supply.

> **ACTION REQUIRED**: We would recommend, for your own safety, that additional smoke detectors are 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.

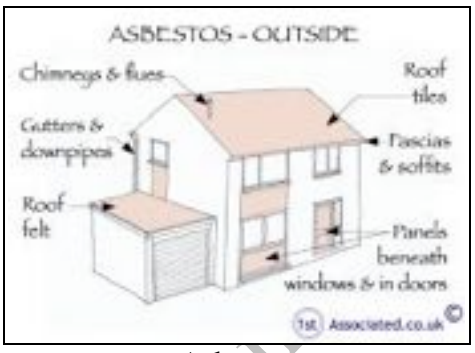
Insurance

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 type there was asbestos particularly to the roofs. There may also be other asbestos elements such as fascias and soffits, cladding, internal walls and ceilings and ductwork around services. In this case asbestos was originally to the roof and could have been to the cladding boards and the fascias and soffits.



Asbestos

Asbestos was commonly used post war until it was banned only in the UK in the last ten years or so. It is rumoured that it was still used after this point in time where products were imported from countries where it is not banned.

We are Building Surveyors and not Asbestos Surveyors and as such the only way to be a hundred per cent certain with regards to Asbestos in a property is to have an Asbestos report carried out.

> **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 Institution of Engineering and Technology (IET) 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. We are advised that the property was re-wired around 2010/2011. We are always concerned when we are advised a property has been re-wired as often they are not re-wired, but only the fuse board and the socket points replaced.

Fuse Board

ACTION REQUIRED: Your legal advisor to request a copy of the specification for the re-wiring and confirmation of completion.

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: As the property is changing occupancy an Institution of Engineering and Technology (IET) test and report and any recommendations should be carried out by a NICEIC registered, or equivalent, approved electrical contractor or similarly approved.

In addition to this your Legal Advisor is required to make full enquires 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 are advised that the property has mains gas and that the consumer unit is located externally to the front of the property.

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 that the controlling stopcock is located under the kitchen sink. 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.

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 hot water cylinder located in the front right bedroom.

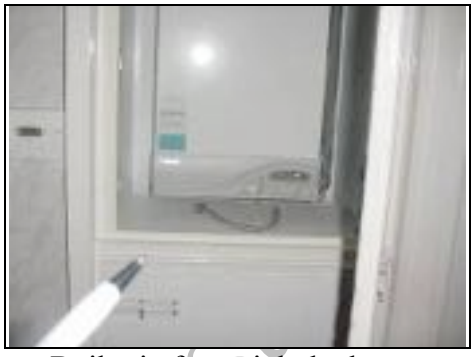
It is factory insulated, which indicates that it is relatively new (in this case we mean in the last 30 years). This cylinder will therefore have a good thermal efficiency, although not as good as the more modern hot water cylinders.

Plumbing

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

Heating

The boiler was located in the front right bedroom, it is manufactured by Ideal.


Boiler in front right bedroom

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.

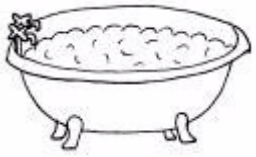
Ten Minute Heating Test

The heating was on during the course of the survey and it was pleasantly warm.

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.

BATHROOM



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

The property has a three piece bathroom suite, consisting of a bath, wash hand basin and WC, which looks in average condition, subject to some day-to-day wear and tear, as one would expect. Extraction is currently via an extract vent.

> **ACTION REQUIRED**: We would recommend that large humidity controlled extract fans are added.

Downstairs W.C.

The downstairs W.C. is within an outbuilding of a single brick wall construction.

Black mould

Black mould often occurs in outside toilets unless there is some background heating.

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.

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

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 one inspection chamber / manhole.

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 located to the rear

We duly lifted the cover and found it to be free flowing at the time of our inspection.

From what we could see it is brick built.

Manhole to rear

We have only undertaken a visual inspection of the property's foul drains by lifting covers and running water from the taps within the house.

Drains are normally shared in a property of this age as this was common practice in this era of property.

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.

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.

In this era of property they are likely to be combined/shared drains which are where the foul water and the surface water combines. 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/OUTBUILDINGS/ PARKING

The property has a garage and off road parking.

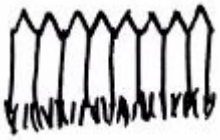
Garage

Lean-to that links to the garage

Please see our comments in the Roof Coverings Section.

Lean-to

EXTERNAL AREAS



Front Garden

The property has a driveway to the left hand side.

Front Garden

Rear Garden

The rear garden is a triangular-ish shape with a patio, lawn and shed, on a slight slope.

Rear garden

Patio to rear garden

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

Right Hand Neighbours

We knocked at the time of the inspection but there was no response.

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) Roof and similar renewals.
ii) Wall insulation.
iii) Information with regards to overcladding
iv) Double glazing or replacement windows.
v) Asbestos test.
vi) Removal of any walls in part or whole.
vii) Drainage repairs
viii) Central heating installation.
ix) Planning and Building Regulation Approvals.
x) Have there been any structural problems referred to insurance companies, any insurance claims, monitoring or underpinning, etc.
xi) 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!

Please do not hesitate to contact us on **0800 298 5424**.

For and on Behalf of
XXX Limited
Independent Chartered Surveyors
XXX

This Report is dated: XXXX

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 XXXX 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.

APPROVALS/GUARANTEES

Where work has been carried out to the property in the past, the surveyor cannot guarantee that this work has been carried out in accordance with manufacturers' recommendations, British/European Standards and Codes of Practice, Agreement Certificates and statutory regulations.

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 cold and dry 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 the surveyors may not be local 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.

JAPANESE KNOTWEED

The Anti-Social Behaviour, Crime and Policing Act 2014 (and amendments) empowers local councils and the police to issue community protection notices to require someone to control or prevent the growth of Japanese knotweed which is rather an invasive non-native plant capable of causing serious

problems to communities. We still believe that prevention is better than cure. Full checks should be carried out.

We have not inspected for Japanese Knotweed. We would advise that we are finding that some mortgage valuation surveyors are setting valuations at zero on any property with Japanese Knotweed and are reluctant to lend where it is present.

ACTION REQUIRED: You need to carry out your own investigations on this matter before you commit to purchase the property and be aware that it could be in neighbouring properties, which you do not have direct control over.

INSPECTION LIMITED

Unfortunately in this instance our inspection has been limited as:

1) We did not have a full view of the roof due to the insulation covering the ceiling joists, the boarding, the general configuration of the roof and the stored items.

Stored items in roof

2) We did not open up the walls as we could not see a way of doing this without causing damage.

3) We did not open up the ground floor or the first floor as we could not see a way to do it without causing damage.

Boarding in roof

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. Examples of non traditional housing
4. Non Traditional Housing
5. BISF House Information Sheet
6. 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 - NICEIC Electrical Contractor or equivalent trades body.
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 good website for seeing the prices of properties for sale in a certain postcode area.

Examples of this type of BISF non traditional house (not your house)

Originally the property would have had profile metal cladding

Rusting to profile metal cladding

Metal frame house with profile metal sheeting at top and render at bottom. Roof has been changed.

How vertical tiling and new windows can considerably change the look of a property but underneath it is still a metal framed building

Pebbledash render in parts as well as plastic cladding and extensions but again the main part of the building is still a metal frame

Plastic cladding has been put on top of property

Example of plastic overcladding

Close up of edge of profile metal roofing that looks like a tile

Weathering effect to roof

Rivet where you can see roof is riveted together

Example of excessive rusting that we have seen in the roof of a metal framed building compared with the rusting in your house which is less than this

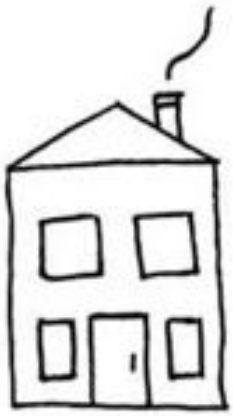
Example of tubular metal frame within the roof of a metal framed property

Example of over insulation of a metal framed property which causes condensation

Non-Traditional Housing

If you need help and advice with regard to independent valuations, property surveys, building surveys, structural reports, engineers reports, defects surveys and structural surveys matters please free phone 0800 298 5424 for a friendly chat with one of our chartered surveyors.

Non-traditional housing, what is it?



We have recently had a phone call asking what non-traditional housing is, as it had been referred to in a valuation that they had had carried out on their property and the lender had decided not to lend on the property because of this. Yet, from what they could see the property was in good order and they knew the person who had lived in it for the past thirty years, with no problems whatsoever. They went and had a look at the property again and it still looked to them like a traditional house and to be in good order. What was more they liked it and it had a big garden too and they were mystified why they couldn't get a mortgage on it.

What do Valuers, chartered surveyors and chartered building surveyors mean when they say non-traditional construction?

It would probably be a better term if the term non-typical construction was used. If you think of a house or a flat and think how they are traditionally built, from the Victorian era it is of brick and tile, or brick and slate, or stone and slate, or possibly render and tile, or render and slate depending upon which part of the country you are from this will be the traditional construction in the area of England, Wales, Scotland

or Ireland that you live in. Often traditional construction is as local as the county or Town you live in. Nevertheless it is known as traditional construction.

What is traditional construction? Because equally we could argue that timber frame construction is the traditional type of construction in most areas of the country, but we will leave that argument up for another day.

Where did the term non-traditional construction and traditional construction come from?

We believe it came originally from the mortgage companies as a chartered building surveyor would certainly be more specific with regard to what the construction type is. We believe it was generated by the mortgage companies because they wanted to establish how the vast majority of properties were built and so appeared the terms traditional construction and non-traditional construction.

Non-Traditional construction

Non-traditional construction can really be classed as construction techniques that utilise systems of building, focused on speed and economy of construction. It is the sort of construction that is used where a great deal of housing is required quickly, so it is often used by local authorities to mass build (although today it is also used by commercial construction companies and developers). We have carried out surveys on many different types of non-traditional construction.

This resulted in some one-off designs but the majority of them fall into the category of:

1. Metal frame
2. Concrete frame
3. Timber frame
4. Concrete panel construction
5. Structural insulation panels
6. In situ concrete
7. One-offs

We know we are cheating really with the last category but it is the best way we can think of explaining it.

The absolute bible for this, although it is getting slightly dated is:

Non Traditional Houses – Identifying Non-Traditional Houses in the UK 1918 to 1975 BR469
Compiled and Edited by
Harry Harrison, Stephen Mullin, Barry Reeves and Alan Stevens.
Published by BRE Press (Building Research Establishment).

Many years ago the Building Research Establishment (known as BRE) were part of a Government organisation with the Property Services Agency (PSA) which we would say were the undisputed experts on construction and building problems along with a few Universities such as Reading and Salford Universities who looked on the more academic side. However we would also say that things have changed with commercialism.

We cannot recommend this book highly enough although it will set you back several hundreds of pounds, possibly worth using a search engine to see if you can pick up a second hand copy somewhere.

After the Great Wars we needed houses and homes

In the UK after World War I and World War II our housing stock had been bombed and made safe by being demolished so there were fewer houses. There had also been a lack of maintenance over the war years, as the workforce had been at war, and then the armed forces men were returning and they needed houses quickly. Various methods of non-traditional construction were proposed and built in the 1940's, 1950's and 1960's.

Also, this type of construction has been used during boom years, such as the early 1970's and the late 1980's, where it was hard to build quickly enough for supply and demand. Our comments relate to the UK, there are even variations in the UK.

Non-traditional construction by another name

After the war years we had to build fast and we used many new forms of construction techniques. We will name a few here; these names may have been given to you when you looked at buying a house. We will carry out a brief description of them or you could telephone us on 0800 298 5424:

Airey Houses

These have a concrete plank externally supported on a pre-cast concrete frame with steel tube reinforcements.

Airey houses were made up of concrete planks and are now generally being knocked down and rebuilt as they are not habitable

Street view.
They were named Airey houses after the Member of Parliament that was involved with them rather than the fact that the wind blew through them and they suffered badly from condensation.

Boot

Believed to be named after the contractor of that name. Built on a concrete frame with more traditional brickwork or render typically found externally.

Cornish Unit

Although they are called Cornish Units, we have found them all over the country. They come in various makes and models as do the other houses that we mention. They were traditionally constructed with a concrete frame. The unusual thing was the mansard roofs that ran all the way down to the first floor level.

Dorran

These were pre-cast concrete panel buildings with a concrete ring beam at first floor level with a timber frame internally.

Dye Construction

This was concrete panels which were a storey height secured by metal angle brackets (believed to be steel) with concrete beams forming the first floor.

Gregory

This is pre-cast concrete, storey height columns with ring beams. These have mansard roofs to first floor level.

Myton

These are concrete panels.

Newland

Steel frame.

Orlit

A feature of these is that they may have a flat roof with an asphalt finish.

Parkinson

These are concrete column construction with a render or pebbledash finish externally.

Reema

Hollow panel. These are structural concrete columns and beams cast in situ.

Stonecret

This is pre-cast reinforced concrete frame with concrete panels, two storeys in height.

Tarran

Pre-cast concrete panels with first floor ring beam. The panels are very wide.

Unity and Butterly

Pre-cast concrete column, metal plated beams. An unusual external finish of a small looking concrete panel.

Wates

Believed to be named after the contractor of that name. Pre-cast reinforced concrete panels with ring beams at first floor level.

Wessex

Pre-cast reinforced panels.

Wimpey No Fines

In situ mould type no fines concrete with a variety of different thickness of walls depending upon the age and type.

Laing Easyform

Comes in both solid and cavity wall forms built from a no fines concrete.

Arrowhead

Steel structural frame albeit that it is lightweight. They tend to have cladding to the front of them.

British Iron and Steel Federation House known as a BISF

These are relatively common although they are now very well disguised with brickwork being built around them. They are a lightweight structural steel frame.

British Iron and Steel Federation House (BISF)

Asbestos roof on BISF house

Dorlonco

They have a very well hidden structural metal frame.

Hawthorn Leslie

This is a mixture of both a metal frame and a timber frame.

Howard

We have come across quite a number of these in our surveys. This uses a lattice work of metal beams.

Lowton Cubit

Possibly named after the contractor. Again this is a steel framed building.

Thorncliffe

Cast iron panels bolted together.

Swedish timber dwelling

Built with a timber frame.

Reema conclad

This is a good example of a large panel concrete house.

This is but a brief run-through of some of the non-traditional houses. There are many, many different types. We have surveyed ones where there are only a few thousand ever produced and we have also surveyed other types of non-traditional houses where there are many thousands produced. In our experience as chartered surveyors they all need their own individual survey as they have their own unique problems.

It may look traditional construction even though it is non-traditional

With the purchasing of these houses over the years and the need to get a mortgage there have been many ingenious ways of making these houses mortgageable as per the following photographs of houses where we have carried out surveys; these are the ones that have been spotted by mortgage company valuers:

Modified non-traditional house

Brick clad modified non traditional house

Brick cladding and other alterations make a non traditional house mortgageable

A mortgage company surveyor may miss a non-traditional house construction

We have now been called in several times to do a Building Surveyor where the owners have not known that the type of construction is non-traditional construction even though they have had a mortgage company valuation. Unfortunately this is due to a lack of knowledge and experience with mortgage Valuers. After all, valuation experts are not building construction experts. We have come across the issue, if it looks traditional construction even though it is constructed in a non-traditional way it may be counted as traditional construction! This tends to be the case where a Valuer has failed to notice the construction type and when we come to carry out a building survey we then identify it. Unfortunately this then means that whoever is purchasing has a very limited mortgage market available to them.

Who lends on a non-traditional construction building?

The answer is the companies interested in lending in this market vary depending on many factors. What is also true is that lenders do vary their lending policies and they may be lending on it one minute and then not lending on it the next.

Modern timber frame houses – are they non-traditional construction?

It could be argued that the houses being built, in what is known as modern timber frame, are as far away from traditional construction as houses that have been classed as non-traditional construction! They have, for example, been built out of concrete.

And this is where non-traditional construction gets really confusing

However, this is where non-traditional construction really is confusing as some non-traditional construction techniques look very similar to traditional construction techniques and can only be identified by the trained experienced eye (we are more than happy to chat about this, please free phone us on 0800 298 5424). As mentioned, even more confusing is there are some non-traditional constructions that are accepted by the banks, building societies and mortgage lenders and others that are not, assuming that the bank valuation surveyor spots them. It is so important to know whether banks, building societies and mortgage lenders will lend on this type of construction if you are considering purchasing.

Is it the way the structure works that makes a building traditional or non-traditional construction

To expand on this, a traditional old style timber frame property is built of oak to a one-off design. It certainly could be classed as the original traditional construction, as most houses were built in this form. However, in more recent times traditional construction has been thought of as brick and tile, or brick and slate, or stone and tile, stone and slate, etc, as we mentioned earlier.

When the original non-traditional housing was built there wasn't too much thought given to making it look externally like a traditional building. Therefore, some complained that they seem to have concrete finishes, be it painted concrete, which looks similar to render, or concrete planks, as in the Airey buildings. We would argue as these were easily identifiable and stood out they were more a target for mortgage lenders not lending on non-traditional construction that looks like traditional construction.

Modern timber frame construction that is non-traditional but will be lent on

Let us first of all explain what modern timber frame construction is. They are very much an engineered timber frame that is an absolute minimum of timber and maximum strength characteristics. The majority are factory made and factory assembled and are built in mass, rather than being a one-off design and they have an external cladding for protection, often brickwork, although in more recent years we have noticed in our surveys that render has been used, or cladding panels of timber and also plastic lookalike timber. Modern timber frame properties are also finished with a membrane to stop any dampness from the external walls getting through (we have seen in our surveys where it does happen it can distort or rot), as it can be in a traditional timber frame property.

The whole idea behind a modern timber frame construction is completely different; we would term a water construction. This is completely different to the

traditional timber frame property that was built to breathe. However, the modern timber frame property is then clad with brickwork or stone or cladding, such as vertical tiling, and looks very much like a traditional property.

The whole construction is based around the economics of cheap construction and fast construction, and this type of construction is very much assembled, rather than built by tradesmen, the de-skilling being another element in the economics of the construction. However when all is said and done the mortgage companies, such as the banks and building societies do lend against it.

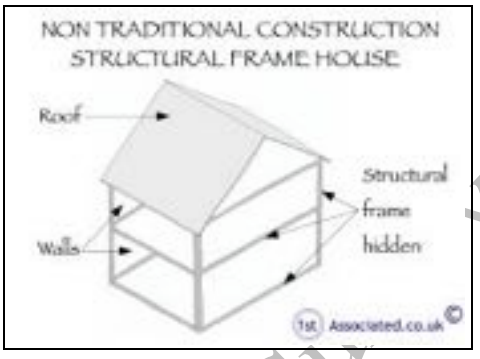
We have seen during our surveys other more recent innovations within the modern timber frame market, such as using composite wood products for floor joists and also for the flooring, together with an increased use of external cladding, as it is more economical and faster to put up than brickwork.

Not lending against non-traditional construction

Interestingly, the techniques utilised for non-traditional construction after the war years tended to use more robust materials and more innovation. They fall into three categories:-

- Structural frame
- Large panel construction
- Innovatory construction

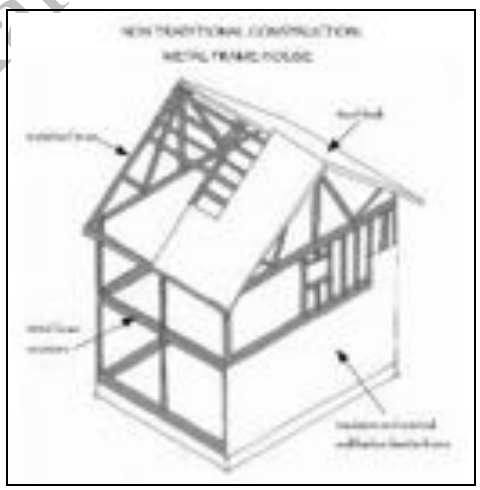
Structural frame



This was very much where a structural frame was erected. The walls were then hung off it. The structural frames can be metal, concrete or wood. The danger factor for a mortgage company lending on this is if there is deterioration within the structural frame that is hidden, we would pick this up during a survey therefore it is critical that a Building Survey is carried out prior to purchasing a non-traditional property. A lot of Local Authority housing was built in this manner, and other National companies requiring housing, such as the Coal Board, and utilising mass production techniques lowered the cost of the housing. These types of houses also tended to use techniques that we hadn't used before in the housing market, although often we would use them in the commercial market.

Metal Frame Structure

Below are photographs of a metal frame house that we have recently surveyed.



Original condition of non-traditional house with roof replacement

Close up of cladding on non-traditional house

Non-traditional metal frame house

Painted cladding to non-traditional property

Close up of old metal windows in a non-traditional house

Features to look out for in non-traditional houses

We thought we would give you some tips on the sort of things to look out for:

Chimneys

Asbestos was a very popular material (yes really) when non-traditional houses were being built.

Asbestos original chimney non traditional house

New chimney on a non-traditional house

Soil and vent pipe

Original asbestos soil and vent pipe on a non-traditional house

New plastic soil and vent pipe on a non-traditional house

Roof Construction

It is important to get in the roof and have a close look or for you to employ a chartered building surveyor that will get in the roof and have a close look (Valuers no longer need to view roofs when carrying out valuations – did you know that?). The below photos are what our surveyor saw on a recent survey:

Rusting to a lightweight metal frame or damage or deterioration to the metal frame of a non-traditional house

Some fixings replacements/repairs to a non-traditional house

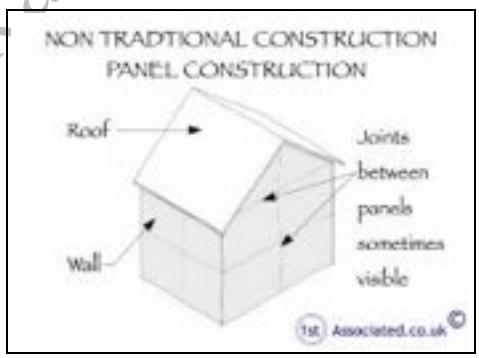
The adding of modern things can affect the building

It is very common these days to have a shower/ bathroom with an extract system. Does that extract system discharge into the roof or does it discharge out of the building? If it discharges into the roof then there can be problems with rusting and corroding of metal and dampness to timber.

Extract vent to outside often discharges into roof which is essential that they do not in this type of roof

Large panel construction

This, as the name suggests, is where rather than building small brick after small brick we used large panels, usually of concrete, which in themselves were a storey height and similar width, about two and a half metres square, and they literally interlocked. There have been problems with the reinforcement used in these and the connections of them, but we haven't come across these problems in the many years that we have been surveying.



Large panel concrete non-traditional house

Jointing to a non-traditional house

General view of a development of non-traditional houses

Innovatory construction

We couldn't think of a better title for this section, but we basically mean constructions that used innovation to look at building houses in a completely new way. An example is the Wimpey no fines concrete system, which is popular and, as far as we know, mortgage companies will lend upon it. It utilises almost a moulding system using form work. There is also pod construction, which is drilling pre-fabricated units, craned and positioned into place and then an outer protective shell put around them. Lots of this type of construction was originally carried out by local authorities, as they had the pressure on them to build a large number of houses, and more recently by commercial companies, which had the pressure on them to make profits or returns for their investors.

Non-traditional houses becoming traditional houses?

We have seen during our surveys over the years there has been a need to convert non-traditional housing into traditional housing. It could be argued that the right to buy Council Housing stock made this an important factor, as it is those people who required a mortgage that required the amendments, as in many cases there was nothing physically wrong with the properties.

Also, large companies holding a large amount of housing stock, such as Council Housing and Housing Associations requiring the housing to be brought up to more modern standards for thermal efficiency, etc, have utilised innovative ways of upgrading (although we are not sure whether that's the right term). Their housing techniques normally involve a cladding system to improve thermal efficiency, along with the check on the structural elements. We have surveyed some of them where they practically re-build the original buildings, which ironically can be very difficult. Whilst we don't know the exact figures we imagine it would be almost as costly as building the property from scratch.

Whistle-stop tour of the non-traditional housing market

There are whole books dedicated to this area, so an article such as this can hardly present the subject of non-traditional housing in detail, but we hope this has given you a flavour and an interest for the subject.

If you truly do want an independent expert opinion from a chartered surveyor, or a chartered building surveyor and are particularly interested in carrying out work on modern timber frame properties and if you are buying such a property please look at our survey examples. We feel our surveys are quite unique, as they are written to your level of knowledge. The surveys include photos and sketches and definitions. The survey will also include an action required section and an estimate of costs in the executive summary. We are more than happy to meet you at the property whilst carrying out the survey to discuss any specific issues you may have or have a general chat about what we have found at the end of the survey. Please contact 0800 298 5424 for a chartered surveyor to give you a call back.

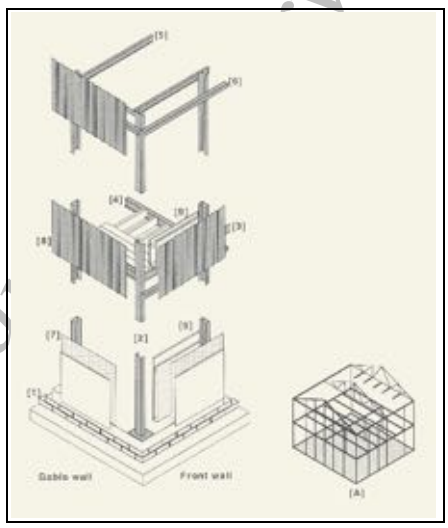
We hope you found the article on Non-Traditional Housing of use and if you have any experiences that you feel should be added to this article that would benefit others, or you feel that some of the information that we have put is wrong then please do not hesitate to contact us (we are only human).

BISF House Information Sheet
British Iron and Steel Federation

This article has been written by a Chartered Surveyor based upon our findings and experience over the years of surveying these types of properties. If you would like to discuss BISF properties further with us please free phone 0800 298 5424 for a friendly chat.

Introduction to BISF Houses

BISF stands for British Iron and Steel Federation. The BISF house is a pre-fabricated steel structure originally built with a shallow pitched asbestos roof, panelling to higher level and render to lower level. Between the metal frames are timber struts and insulation with an inner plasterboard or hardboard which originally had a design life of between ten and twenty years.



BISF house structural detailing sketch

Non Traditional Constructions Overview

There are considered to be around one million properties built from non-traditional construction. The Building Research Establishment (BRE) have over 500 systems listed between 1900 and 1976 excluding RAT Trad and post 1976 timber framed construction. There were approximately 35,000 BISF houses built over a period of 6 years. It was only exceeded by non-traditional buildings of aluminium bungalows which were 55,000, Easy Form which was a concrete system which had 90,000 built and Wimpey No-fines which had 300,000 built. BISF buildings do tend to stand out. They are predominantly built by Local Authoirities.

BISF house many years later

BISF property with metal profile sheet roof (has asbestos roof been removed or has it been overclad?) and metal profile sheet at first floor level and render at ground floor level and older style double glazed windows. .

BISF house with a profile metal roof, (again has asbestos roof been removed?), plastic cladding at first floor level (is there insulation between the profile metal sheets and the plastic cladding that is causing condensation) with pebbledash render at ground floor level and modern double glazed windows

BISF Houses were built with a purpose and a set timescale in mind

It should be remembered when looking at these buildings that they were after the War to fulfill the requirements of a lack of housing. Equally they also fulfilled the need for work and allowed the factories that had been producing things for the war effort to then change and use these buildings.

Is a BISF house unmortgageable?
It depends on when you ask the question!

It is probably more true to say that they are difficult to mortgage. With the Right to Buy Scheme in 1979 five million council house tenants were given the right to buy their homes under the Conservative Government proposal. Those who had lived in their house for three years got a discount of 33% and then it increased in stages, people who had been tenants for 20 years got a 50% discount. Michael Heseltine, the Secretary of State for the Environment said that the Bill laid the foundations of social revolution allowing people to own their own homes. Roy Hattersley of the Labour Party fought it. Most importantly the Government said they would offer tenants 100% mortgage from the Local Authorities. It was considered a vote winner for Margaret Thatcher in 1979 and 1983 and Labour dropped their official opposition to it in 1985 and by 2003 1.5 million council houses had been sold.

The reason why the properties are unmortgageable outside of Council mortgages are:

1. Corrosion and deterioration of the frame that is hidden by the structure
2. Properties are poorly thermally insulated for today's standards
3. Noise transfer between buildings

Improvements to bring up to current standards could involve a thorough check of the steel frame, replacement of the asbestos roof and increase in insulation without promoting condensation and a reduction in the noise transfer between the properties with the addition of new double glazed windows. We have had costs quoted at between £20,000 - £50,000 depending upon the alterations already taken place and mortgage company requirements.

Knowsley Housing Trust advise costs in 2004 (however bear in mind that they do not need to get a mortgage) as:

Structural render	£8k
Roof insulation	£4.3k
Windows	£2.1k
PVC doors	£1k
Fascias and soffits and rainwater goods	£0.5k
Bathrooms	£0.9k
Central heating	£2.3k

As the vast majority of houses sold in the UK are mortgaged it is essential that these properties are mortgageable to sell to the majority of the market.

Specific Problems on BISF Houses

BISF house asbestos roof problems

When deteriorating asbestos can be a health hazard, complete replacement recommended. The roof material has to be appropriate for the strength of the roof structure and in our experience they need replacing with a profile metal sheet and insulated. However this also needs to be ventilated to prevent corrosion from occurring.

BISF house steel structure problems

Risk of deterioration to the base of the steel structure and around the window areas and high humidity areas such as bathrooms and kitchens.

BISF house walling problems

Profile metal sheeting to the upper areas and a render on an expanded metal lath to the ground floor areas with a timber frame and a fibreglass insulation and plasterboard. The frame is formed with rolled steel angles and channels. The roof is formed from tubular steel trusses which we believe are mock truss centrally (this needs to be checked and confirmed).

BISF house insulation problems

Improvements in the insulation can result in condensation. External structural insulation panelling is recommended which is difficult to do (unless both yourself and the neighbouring property are carried out otherwise there will be a step in the external wall).
Structherm is often quoted as the only suitable insulation rendered panel system as this is accepted by ninety per cent of the mortgage companies (obviously subject to variations in the market) and is available with a long term guarantee.

BISF windows and doors problems

Originally steel frame timber glazed. Now the majority have been replaced with double glazed windows.

BISF party wall problems

The dividing wall between properties. We have seen quoted as 30mm thick or as a studwork.

Voice of Experience

We recently spoke to a contractor who has spent several decades renovating the steel framed properties for a range of clients from Local Authorities, property developers and individuals. It is refreshing to hear first hand the issues that they have come across over the years. We thought we would relay some of these in this article.

The first myth or urban rumour is that the BISF buildings were temporary buildings for only ten years, they are meant to have a design life of far longer. He concurred with our findings that originally they had asbestos roofs with metal cladding to the upper sections and render to the lower. Over the years they have done almost anything and everything to these properties. He had also been involved in some cases where he had looked at them for loss assessors where they had burnt down and they had renewed the structures inside out. It has been the main focus of their business over the past three plus decades. Interestingly he advised that he had come across asbestos which had been covered over in the roof but the majority of times it has been removed. He has come across the phenomena of insulating the underside of the roof, i.e. the pitched section which is what we have found. This is quite common although he is uncertain as to how effective it is and indeed thought that with the wind blowing through the rest of the structure it was better to put the insulation actually in the ceiling void of the upper floor as we traditionally do. He made interesting comments that he had seen a variety of lightweight roof structures over the years. They do need to be lightweight due to the way the roof is constructed. The majority of them have metal sheeting as protective coating.

With regard to the wall cladding he advised that he had seen many different ways of looking at wall cladding over the years but the most cost effective was to use the existing cladding as a backing for insulation and then add a cladding onto that. He has seen everything from brick to stone to timber finishes. He commented that cladding was popular although he wouldn't recommend it due to it always seeming to discolour if it was plastic and/or need regular maintenance if it was timber. He also advised that the lower sections were often best in a different material although he wouldn't recommend render which was what they were originally carried out in. This was because of the differential movement between the steel frame and the render structure left cracks. It was often best to have some form of cladding or

different materials to the upper parts and brick to the lower parts. He also commented that if they were working on a lot of houses for a landlord such as a Local Authority or Housing Association then they would tend to mix and match them as each house would have an individual look and overall made the general look more appealing. Interestingly he said whilst the steel frame structure is strong enough to resist fires (and remember he has actually seen these buildings after a fire) he commented that you do need to be careful with the amount of weight that you hang from them.

Of course he commented that he would be more than happy to come and view any BISF property to comment further. Most importantly we think is that he would actually be able to give a firm price on the amount of work due to their experience.

Inspection

Surveyor's inspections can take the form of a non intrusive visual inspection or in the form of an intrusive/destructive inspection where the walls are opened up exposing the framework. Some reports say the use of borescopes however in our experience borescopes do not give a suitable view of the area so we would recommend opening up of the structure.

BISF Information and Action Required

You need to establish the exact mortgage requirements on the property at the time that you wish to purchase as these will change from time to time.

Independent Chartered Surveyors

If you truly want an independent expert opinion from a chartered surveyor on system buildings then we have experience with the BISF system building and other system buildings. We can help you get a mortgage on these and give impartial advice as to whether you should be getting a mortgage on them, as well as carrying out a property survey, an engineer's report or whatever else your mortgage company has requested. Please contact us on free phone 0800 298 5424 for a chartered surveyor to give you a call back.

Surveying articles

We hope you found this article on BISF housing interesting and if you have any experiences that you feel should be added to this article that would benefit others, or you feel that some of the information that we have put is wrong then please do not hesitate to contact us (we are only human).

The contents of the web site are for general information only and is not intended to be relied upon for specific or general decisions. Appropriate independent professional advice should be paid for before making such a decision.

Condensation and Cold Bridging in Non Traditional houses

What is cold bridging, how does it work?

Cold bridging is a term and a problem we believe will become 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.

Non traditional house mainly asbestos

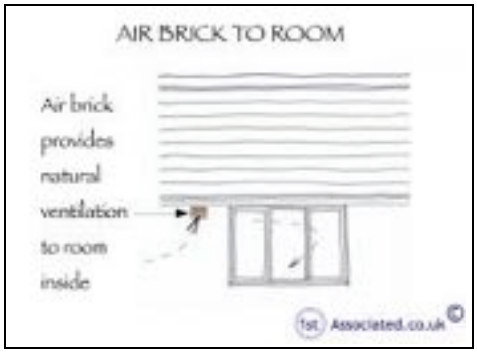
Cold Bridging

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.

British Steel frame house (BISF)

Ventilation is important

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.



Airbrick provides ventilation

Condensation and Cold Bridging in certain susceptible constructed properties

Survey 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/condensation

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.

Rusting within the roof between the insulation and plastic protective underlayer

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.

Buying a modern building

If you buy a 1980'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.

Metal frame non traditional construction

When is Cold Bridging Likely?

In our experience we have seen cold bridging occurring in:

1) Eras of properties where there are warm elements and colder elements to the building.

2) Where you have a mixture of warm rooms and cold rooms.

   For example: Lounges and main bedrooms tend to be warmer than guest or spare bedrooms most of the time. Also sometimes rooms can warm up due to large areas of glass and thermal heat gain, which is very true in some conservatories also.

Black mould and high damp meter readings

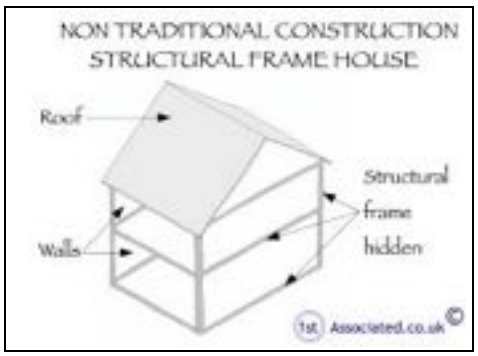
3) Humidity internally is high

4) Where it is colder but by no means very cold outside

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.

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



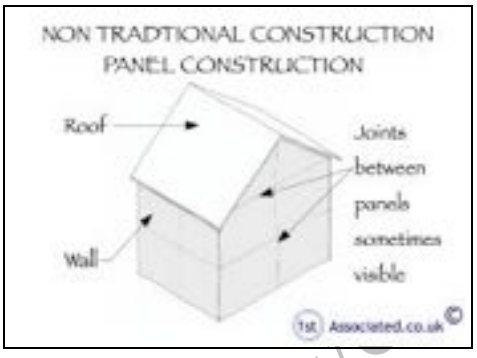
Non traditional structural frame house

For example with:

1. cavity wall insulation or

2. double glazed windows.

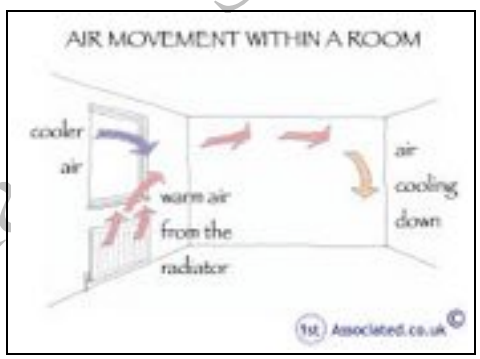
This meant they were warmer which has meant the significance of a lintel, over a door or window, being colder and allowing the transfer of coldness becomes much more important. This results in condensation that we commonly see above windows in this age and era of property.



Non traditional panel construction

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.



Air movement within a room

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.

Metal cladding roofs

Can lifestyle be 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.

Cooking produces steam and requires ventilation

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.

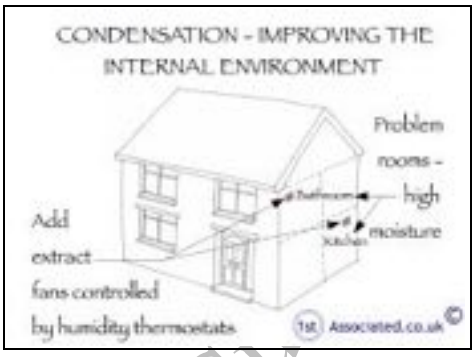
Is Cold Bridging and Condensation a design problem or a lifestyle problem?

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 can 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.

Non traditional BISF property

Design of the Building

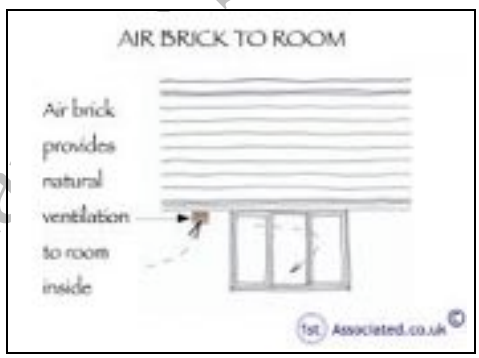
Sometimes it really is down to the design of the property. Where there are cold elements in it, such as a concrete structural frame or concrete lintels, when these are in contact with moist air condensation occurs. Sometimes this is impossible to stop but often it is possible to reduce it by having a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



Condensation

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 inch 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

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

Removing electric points to view construction

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.

Cold bridging what can we do?

There are limited things you can do with regards to cold bridging as it is about the original design of the property and needs to be considered as a characteristic. However, we do always recommend large humidity controlled extract fans are added into the bathrooms, kitchens and any areas that you intend to carry out drying of clothes to ensure moisture is removed as quickly as possible.