



*solving the source of damp*



## REPORT

For and on behalf of XXXX

Property surveyed XXXX, London XXXX

This report is for the sole use of XXXX for whom the survey was undertaken and can only be relied upon for 90 days from the survey date. Unless expressly stated otherwise in this report, nothing in this report confers or is intended to confer any rights on any third party pursuant to the Contracts (Rights of Third Parties) Act 1999.

Dear XXXX,

Thank you for instructing us to carry out a damp survey of XXXX. We understand that you have concerns about damp on the ground floor and so you wish to have an opinion from an independent expert damp surveyor. Please inform us if we have misunderstanding your instructions.

## OVERALL OPINION

Overall the house is beautiful, with a few risks of damp and condensation. Every property suffers from dampness to some degree. You will mitigate the risk of damp if you follow all our recommendations. This report is intended to be read in full. Observations and opinions must not be taken in isolation.

Like any building, especially a period property, you need to be aware of the risks of damp arising in the future and plan a programme of prevention and maintenance accordingly.

We recommend you spend time understanding our advice in this report, which we would be happy to discuss in person. We would also be delighted to revisit at any time for a modest survey update fee and likewise before you eventually decide to sell the property.

## INDEPENDENCE AND METHODOLOGY

Our only income is through damp survey fees. Our motivation is integrity and practical, durable solutions. There is no conflict of interest as we are independent of contractors and never profit from remedial work. We use chemical analysis to identify damp within walls.

## SURVEYOR'S DECLARATION

I confirm that I inspected XXXX on 5 April 2018. I conclude that at the time of the survey there was no significant risk of rising damp from below the original external ground level. And that main damp issue results from condensation.

*Simon Hichens*

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Property Care Association qualified (PCAQT), Member of Property Mark (ARLA)  
Specialist Surveyor*

*Report completed on 6 April 2018*



## CONTENTS

	Page
<b>The Property</b>	<b>4</b>
<b>About damp surveys ltd</b>	<b>3</b>
<b>Understanding damp</b>	<b>4</b>
<b>Conditions during the survey</b>	<b>4</b>
<b>Illustrations</b>	<b>6</b>
<b>Conclusion</b>	<b>6</b>
<b>Recommendations</b>	<b>9</b>
<b>Limitations</b>	<b>10</b>
<b>Ongoing Maintenance</b>	<b>10</b>
<b>Health and safety considerations</b>	<b>11</b>
<b>Tracing source of dampness</b>	<b>11</b>
<b>Appendix – Terms, Insurance, Quotations</b>	<b>11</b>

## ABOUT DAMP SURVEYS LTD

Damp Surveys Ltd is an independent specialist damp surveying company incorporated following the development of analytical technology employed to rapidly and accurately differentiate types of damp. Our confidence in our analytical equipment allows us to categorically state whether or not there is a risk of rising damp. If we are satisfied that there is minimal risk of rising damp, we can offer a warranty subject to application and conditions.

Independence is key to understanding how we operate and why we provide a unique service quite different to any other company. Many contractors, looking for chemical damp work, offer low cost, or sometimes “free” surveys. We do not and never will benefit financially from any recommended remediation. We are motivated to recommend optimal treatment to protect the property now and into the future.

Your peace of mind is our goal, for you to be satisfied that the property will be properly protected against damp and for you to recommend us in person, or by social media.

## THE PROPERTY

The property is a large Victorian terraced house built about 1900. The front door faces West. All references to location are taken as if standing on the road looking at the front door.

The walls are constructed of solid 9" brickwork. The ground floor to the main building, is made of suspended wooden flooring over a sub-floor void. The elevation on the ground floor level is 22M above sea level, in a low flood risk area of London.

### Changes to the property's original design

The property has been modified by an extension to the side and rear and into the loft.

## UNDERSTANDING DAMP

Excess damp found in properties is largely as a result of changes from the original design, location or use. Properties are built to absorb rain and evaporate moisture without excessive damp inside. Lifestyles have changed over the years, such as taking showers more often. The resultant raised humidity means most properties are at increased risks of condensation. Damp is not inherently dangerous. However, it can spoil decoration and encourage rot, mould and insect infestation. Rot is omnipresent and starts when wood cells rupture above 28% moisture content with a constant source of water. Brown rots, such as dry rot proliferates in unvented damp voids. Wood boring beetles are attracted to humid wood. Mould requires humidity on the surface of over 85% relative humidity (RH) to grow. Rising damp can spoil decorative surfaces. However, there is insufficient moisture to cause rot. Ground water contains nitrates, that inhibit mould growth. Rising damp needs a constant source of water, such as a high water-table within a meter of the ground. Stop the source of water and rising damp will dissipate. According to Thames Water, London's water-table is low, below the lowest tube-line. Rising damp results from the high relative force of attraction of silicone (found in sand, bricks, glass etc.), a phenomenon unhelpfully described as capillarity. The attractive force of silicone spreads water through connected pores in all directions. Plaster can be particularly absorbent. Water spreads downwards first through the additional force of gravity, until lower pores become saturated.

Condensation is caused by moist air condensing on cold surfaces, condensation starts when a wall's temperature falls below the "dew point". The dew point increases as humidity rises. There is often a line within a wall where the temperature is below the dew point, this is called the dew point line. Walls are designed to absorb and evaporate moisture daily. Damp is often cumulative. For example, condensation is more likely to form near a wall that is damp from penetrating rainwater. Likewise, rain will not evaporate as quickly if the wall surface is already humid through condensation. Furthermore, wet external walls are poor

thermal insulators. North, North-Eastern and North-Western walls receive minimal warmth from the winter sun. Some damp only occurs infrequently, once every few years, resulting from persistent rain and wind. Damp detection depends on conditions during the survey.

## **OBSERVATIONS**

### **Conditions during the survey**

Occupancy	Occupied, furnished
Weather	Dry
The previous 24 hours	Wet
Internal ambient temperature	19.7°C
Internal Relative Humidity	49.1%RH
Mould Point (calculated MouldPoint.co.uk)	11.0°C
Dew point (condensation starts below)	8.7°C
Temperature of damp wall	10.4°C

### **External**

- The chimneys, flashing and roofs appeared to be functioning correctly except as noted.
  - There were a few areas to the rear extension where water was ponding, but otherwise the roof appeared to be in good order.
- Rainwater goods looked to be in good order, except as noted, however it was not raining.
- The brickwork, appeared to be in reasonable order, with no obvious signs of ingress.
- The damp proof course (DPC) was mainly covered with a render.

## ILLUSTRATIONS

### 1c Rear extension



There were signs of mould and condensation in the pantry. The cold walls cause surface air to cool down reducing the air's capacity to hold moisture (i.e. increase in % humidity). Mould starts at 85%RH and condensation at 100%RH. The effect is exacerbated by a poor circulation of air in the cupboard and lack of extractor fan in the kitchen.



A humidity meter was left. The temperature of the wall was measured and found to be 10.4°C which is below the mould point of 11°C based on the relative humidity of 46%RH and ambient temperature of 21.4°C – use the meter in conjunction with MouldPoint.co.uk.

### 1b Rear extension



The rear extension ceiling was tested but not found to be damp. There were brown, tea bag like stains, which are caused by moisture from above, picking up the colour of roofing materials. While these stains are typical of penetrating damp, we doubt the roof is leaking.

The roof of the rear extension was ponding at the time of the survey. Presumably it was designed to have a continuous slope towards the rear gutter. While ponding is technically a

defect, the fact that water remains on top for a long time, suggests that the roof is not actually letting water in.

It is more likely the damp patches are as a result of interstitial condensation. Condensation forms on surfaces with a temperature below the dew point. The ceiling temperature was only around 17°C, far in excess of the dew point – and did not suggest poor thermal insulation. Within any material there exist a “dew line”. This is caused by temperature changing more rapidly than humidity from internal conditions to external conditions. In this case it is likely that the dew line is immediately underneath the roof surface. The ponding is almost certainly reducing the temperature of the roof surface by a 1°C or so, as water evaporates, enough to initiate condensation, especially on a cold winter’s night.

The cheapest and easiest way to be sure is reduce the internal humidity and monitor the resultant dampness.

## 1c Rear extension



There are two additional issues with the rear extension. On the right-hand side (or left looking from the outside at the rear) the neighbours guttering is causing damp to bounce onto the wall, hence the green algae streak and white efflorescent salt stains. There are currently no signs of ingress, but that could change over time. Cooperation of the neighbour and lead flashing should easily and inexpensively shield the property, resolving the problem. The rear extension allows drips to roll underneath the roof onto the window and door frames causing rust and discoloration. A drip guard should be adhered to the lead to stop this.

We considered the flashing to the sides of the roof. They appear to be in good order. There are no obvious signs of ingress along the flank wall.



## 2 Utility room



The utility room and WC did not appear to be suffering from dampness during the survey. But they are at risk, given the humidity being created by the laundry and cold external wall in the WC. It is advisable to keep an eye on mould and dew points using the humidity meter.

## 3 Upstairs shower room



There was mould growing above the shower and condensation on the window. The shower room has no extractor fan. The window needs to be kept open and door closed until humidity is extracted.

## 4 Other matters



There is green algae growing on the first floor rear roof, so we checked the roof extension, which appeared to be in good order. There was green algae growing at the base of the rear extension on the right hand side (left when looking externally). Although there are no signs of penetrating damp, it would be advisable to keep garden equipment away from the wall so that rain water does not bounce onto the brickwork.

## CONCLUSIONS

There is no evidence of rising damp, indeed the elevation, position on the hill and low flood risk suggests the property is far from a source of ground water, a necessary component of rising damp.

It is likely that humidity is the main contributing factor in the main issues highlighted. It is best to deal with those issues, being inexpensive to resolve first, before considering more expensive and disruptive remedies.

## RECOMMENDATIONS

Our recommendations address items identified in our survey as areas of sufficient concern that they must be undertaken to mitigate the risk of damp. In line with every property, we recommend ongoing observation, repair and a periodic programme of maintenance, including annual clearing of gutters, repainting, repointing and noting of perimeter ground level and water-table fluctuations. We are happy to return and update the survey.

### Action plan

- 1) Mould – using fungicidal paint lasts for years, and is the “silver bullet”.
  - a) Kill the mould with soda bicarbonate or bleach (but not a mixture of the two), vinegar can also work, then wash, scrub and wipe away mould.
  - b) When dry, sand the area course grain sandpaper.
  - c) Pain fungicidal paint (readily available from DIY stores).
- 1b) Reduce the production of humidity by keeping tops on pots and pans. Extract humidity by keeping windows open when the area is humid – alternatively invest in an extractor fan. Use the humidity meter and mouldpoint.co.uk to become more humidity aware.
- 1c) For the water bouncing off the neighbour’s hopper onto the rear extension, ask for neighbour’s cooperation to fix lead flashing onto their hopper to shield your property – arguably it is rain water flowing off their roof, their defective rainwater goods and their cost to resolve.

A drip guard should be adhered to the lead to stop drips. It is better not to puncture the lead, but rather glue a strip – which could be lead – all that it required is a vertical edge to force all the rain water to drip downwards. It need not be expensive and should look reasonably elegant.

- 2) Monitor the utility room with the humidity meter, use the extractor fan as necessary.
- 3) In the bathroom keep the window open and door closed until humidity has normalised.  
Use the humidity meter and [mouldpoint.co.uk](http://mouldpoint.co.uk) to become more humidity aware.
- 4) Garden furniture should be moved away from the building.

## LIMITATIONS

Damp Surveys Ltd reports are designed to provide you with an informed independent expert opinion as to the condition of the property together with any recommendations for further investigation or remedial work. We do not warrant any findings in this report unless we enter into a separate warranty agreement with you.

The survey was conducted during daylight hours. Damp will be more noticeable at night and when the weather is colder and more humid. Gutters are more likely to fail when full of leaves and during periods of prolonged rain and adverse wind. We make best endeavours but cannot guarantee being able to identify all forms of damp, rot and insect infestation affecting the property. The survey represents a snapshot in time. Damp is often progressive only becoming visible after the survey. We are happy to return and update our observations and advice at any time.

We carried out a careful and thorough inspection of as much of the property as was accessible. However, when it is not possible to make a full inspection, we make a professional judgement about the likelihood of a defect being present. In certain circumstances, this may lead to a recommendation for further action to open up an area for further investigation. We are unable to see the whole roof, all the guttering and some of the drains. We were unable to inspect woodwork or other parts of the structure which are covered, unexposed or inaccessible, and are therefore unable to report that such parts of the property are free from defect. There were no obvious signs of damp resulting from these limitations.

## ONGOING MAINTENANCE

- 💧 Keep gutters clear, especially when leaves collect in them.
- 💧 Check flow of water from the roof and down the gutter during heavy rain.
- 💧 Reduce risk of condensation by extracting damp air from humid rooms such as a kitchen or bathroom.
- 💧 Given the age of the property, the external walls are unlikely to be insulated. There is evidence of normal levels of mild condensation. The best solution is to improve the heat on these areas during cold periods, this can be achieved by installing a wall mounted electric thermostat heater in rooms with external walls. If the condensation persists, you may want to consider installing thermal plasterboard on the internal side of the affected walls.

- Mould and damp should be washed away daily.
- There is no magic bullet for condensation in a bathroom. It's very common. Improving the ventilation out, heat and use of tiles and bathroom paints help.
- If the bathroom is updated in the future be aware when a bath or shower is taken out, there is likely to be evidence of damp left behind it. This is normal and should dry easily.
- All guttering and down-spouts except where noted, appeared to be in good condition but they should be visually inspected during a rain event.
- We advise clients that they need to be vigilant in ensuring that drains and guttering on the building are cleared and functioning at all times.
- Skirting boards were carefully examined. There was no evidence of dampness found except where noted. This is significant as fixing skirting boards to rendered masonry walls requires pre-drilled pilot holes to fit the plastic plugs and screws or nails. These holes can often be up to 100mm deep. If damp is present in the walls, it will rust iron nails or screws, and visibly "bleed" out into the skirting board.
- We examined the plaster and decorating. There were no signs of penetrating dampness nor rising dampness. Here was evidence of mild condensation.
- We also carefully examined the walls inside the kitchen cabinets, and closets, and took damp readings there – no dampness was detected.
- Electrical points: There was no evidence of dampness or moisture around any electrical points except where noted. Again, bearing in mind that all electrical points are set with screws drilled into the masonry wall, if plaster or render was damp there would be evidence of this where the screws were drilled into the wall.

## HEALTH AND SAFETY CONSIDERATIONS

There are currently no health and safety issues resulting from defects. Read the manufacturers label on the fungicidal paint.

## APPENDIX - STANDARD TERMS OF ENGAGEMENT

### Terms of Engagement

- 1) You may cancel this contract with Damp Surveys Ltd at any time 24 hours before the time and day of the pre-arranged inspection.
- 2) We may cancel this contract at any time including the day of the inspection if we determine after arriving on site, that it is unsafe or that we do not have sufficient skills to complete the exercise for you. In such a case, we will refund full payment less our travel expenses.

- 3) You are engaging Damp Surveys Ltd, to undertake an inspection of the property in question at a pre-arranged time and the production of a report in a timely fashion thereafter. We will carefully and thoroughly inspect both the inside and outside of the property but NOT any outbuildings unless specifically requested to do so in writing.
- 4) Before the inspection, but after the appointment has been made, we will undertake a desk top analysis of the property by checking various different websites and other information sources for details about the property and its location.
- 5) Terms of Payment – we only accept instructions after advance payment.
- 6) Liability – our report is provided for your use only and may only be relied upon for 90 days from the survey date. Unless expressly stated otherwise in this report, nothing in this report confers or is intended to confer any rights on any third party pursuant to the Contracts (Rights of Third Parties) Act 1999.
- 7) We are unable to inspect parts of the structure which are covered, unexposed or inaccessible, including lofts, without written permission to do so, and are therefore unable to report that such parts are free from defect. We may express a professional opinion as to the likelihood of damp.
- 8) No disruptions will be made to the building's fabric save for a few pin sized holes, left by a measuring device. Access hatches and inspection chamber lids will only be lifted where it is easily possible to do so. Floor coverings and furniture cannot be moved, unless we have the prior written consent of the property owner. Floor voids will only be inspected if access panels permit. If there is a covered area you particularly wish us to investigate, please ensure that the owner of the property gives us prior written permission to uncover it.
- 9) We sometimes publish damp related images on websites to inform the public of damp, rot and the causes of damp and rot. We make every effort to ensure individual and corporate privacy is protected.

### **Insurance**

For peace of mind, Damp Surveys Ltd have Public Liability insurance of £1,000,000 and Professional Indemnity insurance of £250,000 (annual aggregate) both through Hiscox.

### **Quotations**

We recommend obtaining three quotes for any significant remedial work. We are happy to review your quotes, but always remain independent of contractors.