

JOB REF: SDR

SPECIFIC DEFECTS REPORT

Relating to Cracking to the Plasterwork

12 Claremont Grove, Woodford Green, Essex IG8 7HS



FOR

A Client

Prepared by:

INDEPENDENT CHARTERED SURVEYORS

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INTRODUCTION AND INSTRUCTION

We have been instructed by A Client to prepare a report relating to cracking to the plasterwork.

We have carried out a visual inspection of the property.

The instructions have been carried out under our standard terms and conditions which are available on our website and have been forwarded to you prior to our confirmation of instruction.



Front Elevation



Rear Elevation



An example of the hairline cracking



An example of the hairline cracking

SYNOPSIS

You advised us that you have recently moved to the Property, moving in approximately nine months ago. You became increasingly concerned with the hairline cracking which is occurring to the plasterwork throughout the property.

You advised us that this cracking occurred in most rooms and was random as far as you could see.

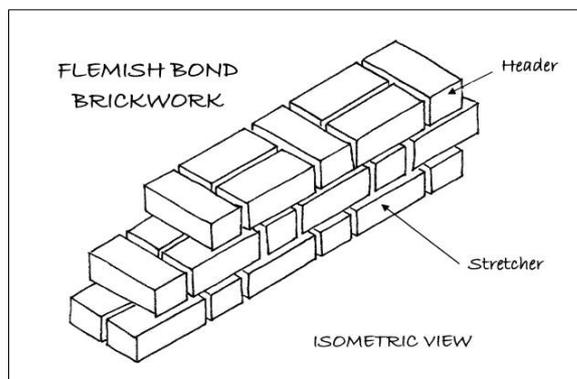
We carried out a visual inspection of all rooms and have had sight of your original structural survey by A N Other Surveyors (of which we have read the summary section). We have also entered the roof space and accessed the floor via the access hatch near the entrance door and opened up a section of the floor within the rear part of the lounge.

We have drawn our evidence from these observations and knowledge of this type of construction.

CONSTRUCTION SUMMARY

External

| | |
|------------------------|---|
| Chimneys: | Brick chimneys. |
| Main Roof: | Pitched and clad in a concrete tile. The roof structure is a cut timber roof. |
| Gutters and Downpipes: | A mixture of the original cast iron and more modern plastic (to the front gutters for example). |
| Soil and Vent Pipe: | Cast Iron |
| Walls: | Predominantly brickwork with a soft red brick to the front of the property and harder white or yellow brick to the side and rear. The brickwork is of a flemish bond construction (assumed). There is also a small area of pebbledash rendering to the rear window. |
| External Joinery: | There is a mixture of sliding sash windows, modern replacement timber windows and plastic double glazed windows. |
| Foundations: | Not inspected but we would anticipate a step brick foundation in this age of property. |



Internal

| | |
|-----------------------|---|
| Ceilings: | Originally Lath and Plaster of which some remain. Where inspected in the roof they were replaced with plasterboard and we believe there has been a skim coat over some of the plasterwork with gypsum plaster (assumed) |
| Walls | Originally Lath and Plaster which we believe has had a skim coat of gypsum plaster (assumed) |
| Floors: Ground Floor: | Suspended Timber Floor (assumed) |
| First Floor: | Joist and Floorboards (assumed) |

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

EXECUTIVE SUMMARY

Executive summaries are always “dangerous” as they try and encapsulate relatively complex problems in a few precise and succinct words. Having said that here is our executive summary and recommendations:

From our discussions with yourself and general visual investigations, we believe that the original lime based plaster has had a skim coat of modern gypsum plaster, and then we would term it as being “painted to sell”, albeit that the redecoration leaves a lot to be desired in some areas! These two materials (lime plaster and gypsum plaster) have very different characteristics and they contribute towards the differential movement in the property.

We feel in this case additionally that there are a variety of property problems which also contribute towards the hairline cracking, some of which you have some control over and some of which you have little control over! (which we have explained below).

Unfortunately the cracking to the plaster will be a feature of this property until the gypsum plaster is removed (not that we are suggesting that this is carried out as it is a very difficult task although not an impossible task).

Uncontrollable Elements

Clay Soil Area

Your home sits in a clay area. This means there will always be an element of movement in the structure, which albeit minor is significant enough to produce such hairline cracking as noted in your plasterwork. Also you will probably note that some timber doors and windows will shut more easily during the summer months than the winter months. Again this is minor movement occurring within the property.

The Property sits on a Sloping Site

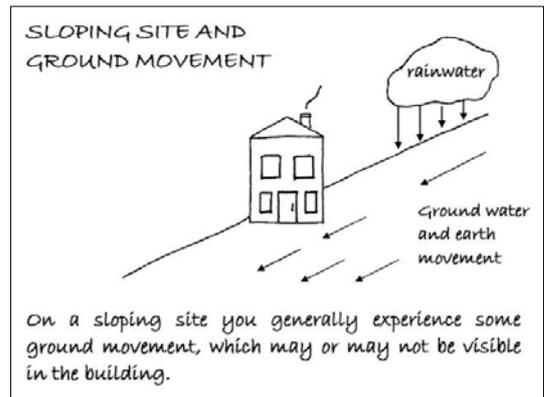
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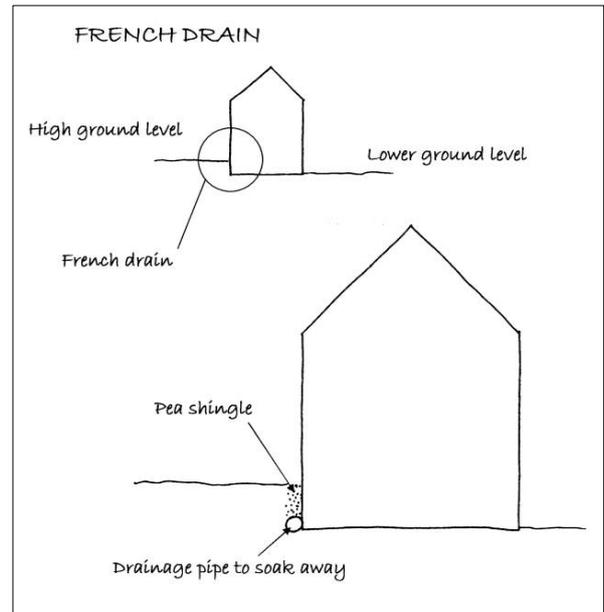
Your home sits on a sloping site. Therefore any rain water will run from the top of your garden to the bottom of your garden. You can however aid how the rainwater travels from the top to the bottom of your garden by adding a French gully (also sometimes knows as a land drain). Presently we can see moss to the rear area of the garden which does indicate that a fair amount of water is sitting in the area.



We would recommend that the next time it rains, you stand out in the rear garden and check exactly how much rain water comes down and passes your property.

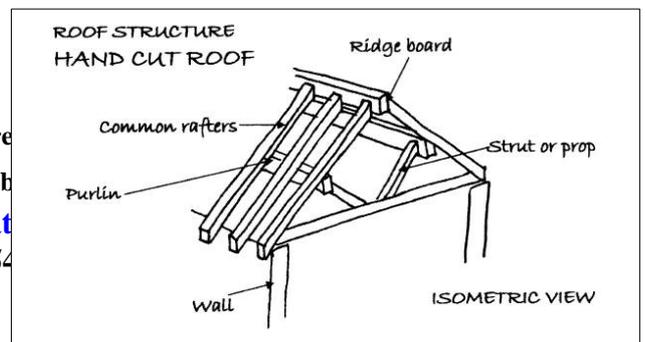


Moss to the rear area of the garden



Roof Structure

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The original roof structure on this property would have been clad with slate, which is a light roofing material. Many slate roofs were replaced due to nail sickness (the corroding of the fixing nails). They were replaced with a concrete tile, being cheaper but far heavier than the original slates. This caused great problems in roof structures (these were cut timber roofs purpose made on site and whilst they all follow a similar pattern it could be argued that they are also all different!) such as the timbers splitting or giving way and leading to roof leaks, or in worse case scenarios, roof spread, which is the pushing out of the top of the walls of the property. As we discussed, your property has stood the test of time and there is no obvious visual signs indicating recent movement.

We would add one further element that due to the unpredictable nature of our weather of late where we do seem to be getting some more extremes of the weather some winds may cause excessive pressures to the roof. There may also be additional pressures to the walls to do with strong wind loadings where minor movement in the property can occur, again of the extent which could cause hairline cracking.

Controllable Elements

Dampness

We need to help the rain water travel around the property rather than through the property!

We have already touched upon this point with the adding of a French gully around the property. We would also add that some of your air bricks are effectively adding as gullies due to their location at outside ground level. You could add a temporary protection using brickwork around the gully (as the one in the bottom photograph).

We would recommend you check the timber flooring found particularly around the gully points. We also found rising damp in this area, which we think has been caused partly by the rainwater travelling from the top of your garden to the bottom. We have also discussed how your property sits on a sloping site and we need to help the water travel around the property rather than down the side of it. Also in this case water appears to be travelling through your property! We have already touched upon this point by adding a French gully around the property.



Air vent acting as a gully



Brick around the gully

Air Vents that aren't Air Vents!

We would also like to mention for the record, that it is very interesting that you discovered your air vents weren't actually air vents and we do think that if you haven't checked all of the air vents already, it would be worthwhile doing this as you do need an airflow underneath the flooring. Ironically if the air bricks to the rear of the property are not really air bricks and are blocked, it may have stopped the floor from deteriorating.



Inserted Damp Proof Course

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We also checked the property for rising damp using a damp meter and believe the dampness that we discovered which was predominantly to the right hand side of the property (and no doubt could also get to the rear of it) was due to the ground levels being above the property. You simply need to lower the ground levels when you are adding in the French gully. We discussed that you believed a damp proof course has been added or inserted previously. It is likely that your property already has a slate damp proof course. We think from memory that you did actually see this. There is no need to add a further damp proof course (regardless of what a specialist damp proof company may tell you). You do however need to lower the ground level and add a french gully.



Checking for Dampness

Time Line – A brief history of the structure

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This is taken from our discussions with yourself and based upon a general knowledge of this type of property.

| | |
|----------------------|---|
| 1880's / 1890's | Property originally constructed |
| During the War Years | Conversion from Gas Lighting to Electric Lighting |
| 1960's | Last 40 years Reroofing with a concrete tile from an original slate roof. |
| 1970's | Last 30 years the addition of central heating which has meant that floorboards would have been lifted to allow the placement of pipes, and it is not unlikely that the chimneys would have been blocked at this time. |
| 1970's | Last 30 years replacement of windows to timber casement windows and plastic double glazed windows. Also Central Heating was added. |
| 1990's | Last 10 years Property has been rented. |
| Past 3 Years? | Replastering and painting internally. |
| April 2008 | Purchase of the property |

We would summarise that generally over the years as with many buildings of this age, alterations and modifications at a later date we found can cause problems, such as the re-roofing in a concrete tile and the adding of central heating and plastic double glazed windows. This means heating levels within the property are increased but a reduction in ventilation, which can lead to condensation. It can also lead to cracking and movement in the structure.

If there are any further details you wish to add to this, please contact us.

INSPECTION

We carried out a visual inspection of all rooms and have had sight of your original structural survey by A N Other Surveyors (of which we have read the summary section). We have not had a detailed examination of the survey as we felt it best to carry out our own investigation, particularly when you advised us that they had not managed to gain access to the roof (which in our opinion is accessible and therefore missed the bucket sitting in the roof catching the rain water!) We have entered the roof space and accessed the floor via the access hatch near the entrance door and pulled up a section of the floor within the rear part of the lounge.



General view of the front roof



General view of the rear roof



Ridge Board and common rafters (the ones which form the pitch of the roof) showing minimal signs of movement.



Opening up of the floor to the dining room area



Bucket catching rain water!

SURVEY FINDINGS

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In addition to the items identified relating to the hairline cracking and the remedial advice recommended we would also like to comment upon some of the other issues (please note that this is not an exhaustive list as we have not carried out a structural survey on the property).

High Level Work

This is work which is likely to need scaffolding. Considering all of the work which you have to carry out, it may well be worth you purchasing a tower scaffolding or some type of safe platform upon which your builders can work.

Chimneys, Flashings and Roofs

We believe that some of the chimneys need repointing. They certainly need a close inspection.

There looks to be a weathered joint to the base of this chimney. We also noted the use of cement flashings which we would always recommend are replaced with lead as cement is brittle and lead is a far more pliable and manuable material and therefore works better at sealing the gaps.

If you recall there was pattern staining internally within the roof space which indicates that the cement flashing to the parapet wall is allowing some dampness in. Again we would recommend that this is replaced with lead.



Pattern staining indicating that dampness is coming through the cement flashings

Orange staining and dampness to the Rear Bedroom and Kitchen

There is staining to the rear bedroom which unfortunately hasn't showed at all in our photos. We believe that this is coming from either the adjacent leaking guttering and/or the adjacent flashing to the chimney leaking. It is not possible to see from our limited view from the property.



Photo taken from your middle bedroom (sorry about the reflection off the bedroom light!)

Valley Gutter Leaking (also part of the High Level Work)

You have valley gutters to your roof where for example the front bay meets the main roof. The valley gutter was difficult to view however from the inside the valley gutter can be seen to be leaking albeit relatively minor.

ACTION REQUIRED: The flashing needs to be checked.



Valley Gutter from the outside



You can see from the darker colour of the far timber, that dampness is coming in via the roof (we believe via the flashings)

Repointed Lime Mortar

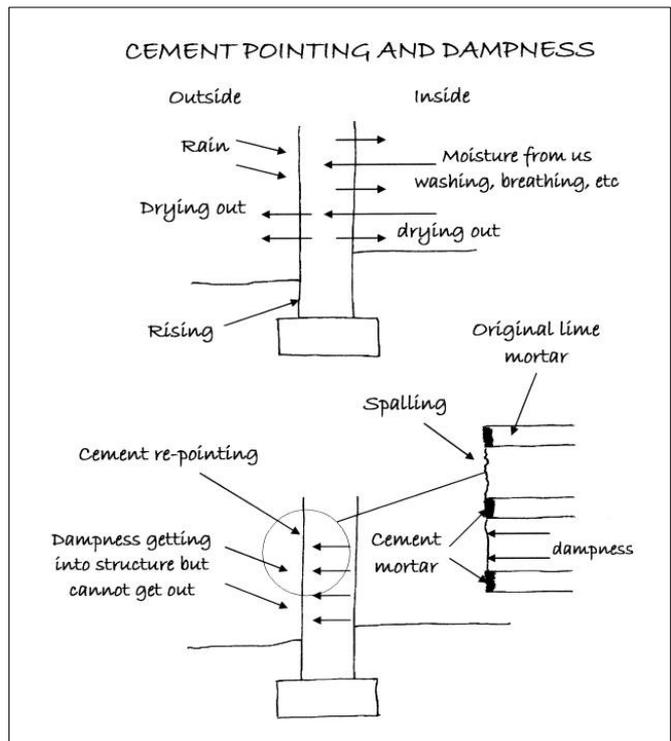
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Unfortunately the front of the property has been repointed in a cement mortar. Originally this would have been in a lime mortar which is far softer. The new cement mortar has not only smothered the front of the property (meaning that any rain water which gets into the wall doesn't dissipate that well) but has in turn caused the spalling of the soft red brick.



ACTION REQUIRED: Ideally we would remove all of the cement mortar however this is a difficult job. We would recommend that the cement mortar is removed by hand with a hammer and bolster rather than with a skillsaw as this could cause damage to the relatively soft brick work, particularly on the perp ends (the perpendicular or vertical ends of the brick). The skillsaw simply isn't delicate enough to carry out this work. Unfortunately if left, the spalling of the brickwork will get worse. Some of the bricks are already quite badly spalled and therefore it is usually best considered to take any badly spalled bricks out and replace or use brick dust with a lime mortar mix to match the brick colour, but this is difficult to do and in our opinion doesn't look very good.



Here is a close up with a pen indicating where the cement mortar meets the lime mortar



Here you can see on the corner of the property at the front on the left hand side where it has been repointed in cement mortar to the front and you can see where the cement mortar meets the lime mortar



Spalling red brick

We would like to point out that this is not a building survey and we have merely added these points. We would refer you to the structural survey that you have had carried out.

SUMMARY UPON REFLECTION

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

There will always be an element of movement within this property. Unfortunately the mixing of old and new materials such as the original lime plaster and the modern gypsum plaster will cause cracking.

Unfortunately the replastering of the entire property has hidden any defects and therefore there may be some latent defects that appear over time. There has also been some other alterations in the property which have increased the stresses and strains, such as the adding of the heavier roof tiles and there are also general areas of dampness coming into the property such as from the chimneys from the cement flashings and possibly the gutters and downpipes at high level and at low level as you sit on a sloping site and as the ground level in some areas is possibly above the floor level, dampness is getting into the property in this way. All of which combined together (and probably a few other things as well) will cause movement in the property. There will of course in addition be some seasonal movement due to the different moisture levels.

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.

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LIMITATIONS

Specific Defects Report

1. Conditions of Engagement

Please note: references to the masculine include, where appropriate, the feminine.

Subject to express agreement to the contrary (which in this particular case has been none) and any agreed amendments/additions (of which in this particular case there have been none), the terms on which the Surveyor will undertake the Specific Defects Report are set out below.

Based upon a visual inspection as defined below the Surveyor will advise the Client by means of a written report as to his opinion of the visible condition and state of repair of the specific problem or problems only. In this instance specifically relating to the hairline cracking in the plaster.

2. The Inspection

a) Accessibility and Voids

The Surveyor will base this report on a visual inspection and accordingly its scope is limited. It does not include an inspection of those areas, which are covered, unexposed or inaccessible. Our visual inspection will relate to the specific defects shown to us only.

b) Floors

We opened up the floor in one area of the lounge and we also had access to a floor opening to the front part of the hallway. From these two areas we have carried out our visual inspection and conclusions have been based upon our best assumptions. Ideally the floor needs to be opened up in other areas, particularly to the side of the property and rear.

First floor:

We have not opened up the first floor.

c) Boundaries, Grounds and Outbuildings

The inspection will not include boundaries, grounds and outbuildings unless specifically stated (none stated).

d) Services

No services inspected.

e) Areas not inspected

The Surveyor will have only inspected those areas identified within the report. His report will be based upon possible or probable defects based upon what he has seen together with his knowledge of that type of structure. If you feel that any further areas need inspection then please advise us immediately.

f) Specific Defects Report

As this is a report upon a Specific Defect we do not offer any comment or guidance upon reactive maintenance and/or planned or routine maintenance items.

g) Whilst we have used reasonable skill and care in preparing this report, it should be appreciated that the Chartered Surveyors cannot offer any guarantee that the property will be free from future defects or that existing defects will not suffer from further deterioration;

3. Deleterious and Hazardous materials

- a) Unless otherwise expressly stated in the Report, the Surveyor will assume that no deleterious or hazardous materials or techniques have been used in the construction of the property. However the Surveyor will advise in the report if in his view there is a likelihood that high alumina cement (HAC) concrete has been used in the construction and that in such cases specific enquiries should be made or tests carried out by a specialist.

4. Contamination

The Surveyor will not comment upon the existence of contamination as this can only be established by appropriate specialists. Where, from his local knowledge or the inspection he considers that contamination might be a problem he should advise as to the importance of obtaining a report from an appropriate specialist.

5. Consents, Approvals and Searches

- a) The Surveyor will assume that the property is not subject to any unusual or especially onerous restrictions or covenants which apply to the structure or affect the reasonable enjoyment of the property.
- b) The Surveyor will assume that all bye-laws, Building Regulations and other consents required have been obtained. In the case of new buildings and alterations and extensions, which require statutory consents or approval the Surveyor will not verify whether, such consents have been obtained. Any enquiries should be made by the Client or his legal advisers.

Drawings and specifications will not be inspected by the Surveyor. It is the Clients responsibility to forward any drawings and specifications that he has or knows the

whereabouts of to us to include information in our report. If these are not forthcoming we will make our best assumptions based upon the information available.

- c) The Surveyor will assume that the property is unaffected by any matters which would be revealed by a Local Search and replies to the usual enquiries or by a Statutory Notice and that neither the property nor its condition its use or intended use is or will be unlawful.

6. Fees and Expenses

The Client will pay the Surveyor the agreed fee for the Report and any expressly agreed disbursements in addition.

7. Restrictions on Disclosures

- a) This report is for the sole use of the Client in connection with the property and is limited to the current brief. No responsibility is accepted by the Chartered Surveyors if used outside these terms.
- b) Should any disputes arise they will be dealt with and settled under English law;
- c) This report does not fall under the Third Parties Rights Act.

8. Safe Working Practices

The Surveyor will follow the guidance given in Surveying Safely issued by the Royal Institution of Chartered Surveyors (RICS).

9. Weather

It was an average winters day at the time of our visit, which limited our inspection.

APPENDIX 1

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PROCESSES USED

1. General Appraisal

General appraisal of building, its age, use, general construction form and condition, noting any unusual aspect of its materials structural character, and changes made (especially recent), potentially relevant information – for example, recent or ongoing nearby construction, nearby trees (proximity, species and maturity) and soil type.

2. General Appraisal of Cracking

Please note we have not recorded width, direction or taper etc.

3. Assessment

Typically it is considered that there are seven causes of structural movement and we look to identify whether structural movement falls under one of these seven headings:

- i. Lack of strength
- ii. Lack of continuation
- iii. Material decay
- iv. Dimensional instability
- v. Sub-soil and foundations
- vi. Overall instability
- vii. Alterations and misuse

4. Consider Causes of Cracking

Consider whether the cause or causes are likely to lie:

- i. in the cracked part itself or
- ii. in associated parts which impose forces (tension, compression, shear, rotation and bowing) on the cracked part.

If ii, consider whether the forces arise from within the building itself (e.g., dead or live loads, deflection, creep or sway) or from external sources affecting the entire building (eg, wind loads or snow loads) or from changes in its support (eg, settlement of made ground, erosion by leakages, poor compaction of fill, seasonal volume changes under shallow foundations in clay, longer term volume changes, mining subsidence, local excavation, swallow holes or landslip).