# **ENGINEERS REPORT**



for

Interested Underwriters per Equity Claims V93684/09/83852 regarding movement that has taken place at:

# The Lodge, 17 Acol Road, London, NW6 3AD



Name of Insured: Mr R Hampton

Policy Number: HH 236004

# THE GRAHAM HIGH GROUP LIMITED

Horizon House 22-24 Station Hill Southampton Road Eastleigh Hampshire SO50 9XB

Tel: (02380) 622 622 Fax: (02380) 622 623 Email: information@highgroup.co.uk Our Ref: L/2009/15115/S/DA/AMG/sp/kjy Date: 8<sup>th</sup> December 2009



# SECTION 1.00

# **INTRODUCTION**

We have been asked by Interested Underwriters per Equity Claims to inspect the subject property, The Lodge, 17 Acol Road, London, NW6 3AD which is the property of Mr R Hampton, and comment upon outward movement of the right hand flank wall of the single storey projection.

Our site visit took place on 26 November 2009 and weather conditions were sunny.

This Report has been prepared on the instruction of Interested Underwriters per Equity Claims for their sole use in connection with a notification of a Claim under their Insurance Policy. Our comments are based on limited observations of the nature and suspected cause of the damage notified but we have not widened our brief to consider other structural matters.

Our Report does not consider questions of timber or damp, service installations or the general condition of the property. We have not inspected woodwork or other parts of the structure, which are covered, unexposed or inaccessible. We are therefore unable to report that any such part of the property is free from defect.

Comments on the causation of damage are based only on the limited investigations, which have been carried out at this stage and would be subject to review in the light of further information being made available at a later date.

This Report should not be used in the same way as a Pre-Purchase Report. It is limited to the damage, which forms the subject of a Claim made by the Policyholder against Interested Underwriters per Equity Claims.



# SECTION 2.00

# THE PROPERTY

Please note that all left-hand and right-hand directions within this Report are as though you are facing the front elevation of the property from the road.

# A photograph of the front elevation of the property is shown on the cover of this Report.

The risk address on this occasion is predominantly a two storey, semi-detached house which presents a single storey at its front. The property appears to have been constructed in the mid 1950s.

The walls are of load bearing brick cavity construction beneath a flat asphalted roof.

The windows are of softwood construction and the property is maintained to a good standard.

# SECTION 3.00

# THE SITE

The property stands in a mature residential area on the outskirts of London and amongst properties of a similar style and vintage. The immediate site is flat and the area comes under the control of the London Borough of Camden.

The level of the site is approximately 1500mm lower than that of the neighbouring address.

# Section 3.01

# **Vegetation**

On this occasion we cannot the rule out the possibility that the vegetation under the control of the neighbouring property owner could be influencing the ground conditions causing damage to the property by moisture extraction.

#### Section 3.02

#### **Geology**

From our investigations on site we have confirmed that the subsoil in the area is firm light brown clay. Soils with clay content will generally have a propensity to shrink and swell with changes in moisture content. That is to say that as the clay is dried its volume will reduce and this can allow downward movement, or subsidence, of the foundations of properties. The amount of shrinkage and swelling which takes place can vary quite dramatically between different types of soil and can only be quantified by soil testing techniques.



#### SECTION 4.00

# **HISTORY**

The property was constructed in the mid 1950s and has been owned by Mr and Mrs Hampton since 1981. The purchase was initially assisted by a mortgage from the Woolwich Building Society but we are advised that there is currently no mortgage interest. The damage was first noticed by the Policyholder in November 2009.

#### SECTION 5.00

#### **DAMAGE**

#### Section 5.01

The damage which forms the subject of this claim relates to movement of the right hand flank wall of the single storey projection. We would suggest that the extent of damage falls within Category 4 according to BRE Digest 251 Assessment of Damage to Low Rise Buildings (August 1990).

	<b>Definition</b>	Crack Width
<b>Category</b>		
0	Negligible	Less than 0.1mm
1	Very slight	Up to 1mm
2	Slight	Up to 5mm
3	Moderate	5mm to 15mm
4	Severe	15mm to 25mm
5	Very Severe	Greater than 25mm

# Section 5.02

# **Description of Damage**

We would ask you to appreciate that on this occasion we are dealing with a property which is of some considerable vintage and as a result of its age and history of its construction / use it is showing signs of historic distortion. We do not believe these are as a result of current subsidence and these have been largely excluded from the description of damage below.



# **Externally**



This photograph shows the cracking within the flat roof at its junction with the right hand flank wall. This cracking has significantly increased in magnitude during the recent months.

# **Front Elevation**

The main construction of the front elevation is of fair face brickwork set beneath a flat asphalted roof. To the right hand side of this elevation we noted a rectangular bay also set beneath a flat roof.

To the left hand side of the front elevation there is a small projection which returns towards the rear of the property and this houses the front entrance door.

Following a general appraisal of the projection and front elevation of the house, we noted no damage consistent with subsidence movement.

# **Right Hand Elevation**

The right hand elevation of the building forms the retaining wall for the neighbouring property.

# Left Hand Elevation

The left hand elevation forms the party wall with the neighbouring property.

# **Rear Elevation**

The main construction of the rear elevation is of fair face brickwork and within this elevation there is a large softwood framed French door unit.

Between the right hand side of the door unit and the brickwork reveal, there is a gap of approximately 25mm which has the hallmark of slight subsidence. We also noted a crack in the concrete sill of the French doors which appears to be quite fresh and is also indicative of slight movement having taken place at the rear right hand corner.



# **Rear Projection**

The main construction of the rear projection is of fair face brickwork.

On the right hand elevation there are five small window units all with softwood frames, four are at ground floor level; the remaining one serves the floor above.

At first floor level at the rear of the projection there is the first floor extension, which is thought to have been built in approximately 1992.

On the right hand elevation of the projection we noted no damage consistent with subsidence movement.

# **Rear Elevation of Rear Projection**

The main construction of the rear elevation is of fair face brickwork.

At ground floor level we noted a medium sized softwood framed window unit set beneath a concrete lintel.

At first floor level we noted the first floor extension as detailed above, which is set beneath a flat asphalted covered roof.

On the rear elevation of the projection we noted no damage consistent with subsidence movement.

# <u>Internally</u>



This photograph shows the cracking within the plaster finish at the rear left hand corner of the sitting room.



# **Ground Floor Level**

In the entrance hallway, which occupies a position to the front left hand corner of the property, we noted that the wall finish was of decorative paper and the ceiling finish was emulsion upon plaster.

To the right hand side of the front entrance door we noted a small hallway leading to the right hand side of the house and into the kitchen/dining room.

We noted minor areas of hairline cracking to the ceiling finish which are considered to be as a result of slight movement of the timber joists above.

In the entrance hallway we noted no damage consistent with subsidence movement.

In bedroom 01, which occupies a position to the front left hand corner of the property, we noted that the wall finish was of emulsion upon lining paper and the ceiling finish was emulsion upon lining paper.

In this room we noted minor areas of damp to the front left hand and right hand corners of the room which are as a result of slight water ingress through the flat roof above.

In bedroom 01 we noted no damage consistent with subsidence movement.

In the kitchen/dining room, which occupies a position to the right hand side of the property, we noted that the wall finish was of emulsion upon lining paper and also of ceramic tiles. The ceiling finish was of emulsion upon plaster.

In this room we noted cracking to the right hand wall at the junction with the ceiling. We also noted that a gap had appeared between the timber framed French door unit and the rear right hand corner of the main wall.

This cracking has the hallmark of slight movement having taken place at the rear right hand corner.

In bedroom 02, which occupies a position centrally to the left hand side of the property, we noted that the wall finish was of emulsion upon lining paper and the ceiling finish was emulsion upon plaster.

Leading through from bedroom 02 we noted the en-suite bathroom where the décor was of emulsion upon lining paper with ceramic tiled splashback areas.

In the bathroom we noted minor hairline cracking to the ceiling and wall finish which is considered to be as a result of thermal movement between differing building materials and is not considered to be structurally significant.

In bedroom 02 and the en-suite bathroom we noted no damage consistent with subsidence movement.

In the bathroom, which occupies a position to the rear left hand corner of the property, we noted that the wall finish was of emulsion upon textured paper together with ceramic tiled splashback areas. We also noted that the ceiling finish was of emulsion upon plaster.

In this room we noted minor areas of hairline cracking to the ceiling finish which are considered to be as a result of thermal movements between differing building materials but of no structural concern.



In the bathroom we noted no damage consistent with subsidence movement.

In bedroom 03, which occupies a position on the ground floor to the rear left hand corner of the property, we noted that the wall finish was emulsion upon lining paper and the ceiling finish was emulsion upon plaster.

In bedroom 03 we noted no damage consistent with subsidence movement.

# First Floor Level

In the sitting room, which occupies a position to the rear left hand corner of the property at first floor level and formed the extension, we noted that the wall finish was of emulsion upon plaster and the ceiling finish was emulsion upon plaster.

In this room we noted areas of cracking to the wall and ceiling finish which are considered to be as a result of plaster shrinkage exacerbated by thermal movements between differing building materials.

To the front of the sitting room we noted an office where the wall finish was of emulsion upon plaster and the ceiling finish was emulsion upon plaster.

In this room we also noted minor hairline cracking to the ceiling finish which is considered to be as a result of thermal movements between differing building materials and gives no structural concern.

In the sitting room and office area we noted no damage consistent with subsidence movement.

# **Single Storey Flat Roof**

Following a general appraisal of the single storey flat roof we noted that the overall condition was in a relatively good state of repair. However, at the rear right hand corner there is significant cracking at its junction with the right hand elevation wall. This appears to be quite fresh and is also indicative of movement having taking place within the right hand elevation of the property.

#### SECTION 6.00

# **INVESTIGATIONS**

Two trial pits and borehole were excavated at the property which revealed the depth of foundation and the subsoil beneath.

A CCTV survey of the drains was not undertaken on this occasion.

#### Section 6.01

#### **Drains**

No CCTV Survey of the drains was undertaken on this occasion since they were remote from the area of damage.



# Section 6.02

# **Trial Holes**

Trial hole 01 was excavated at the front right hand corner of the property and revealed that the foundations in this location were of a concrete strip design with an overall founding depth of approximately 450mm below ground level. The soil immediately beneath the foundations was seen to be firm light brown clay which was moist at the time of our inspection.

We did not locate any roots in the soil immediately beneath the foundations in trial hole 01.

Trial hole 02 was excavated at the rear right hand corner of the single storey projection and revealed that the foundations in this location were of a concrete strip design with an overall founding depth of approximately 600mm below ground level. The soil immediately beneath the foundations was seen to be firm/stiff light brown clay which was moist at the time of our inspection.

We did not locate any roots in the soil immediately beneath the foundations in trial hole 02.

# Section 6.03

#### **Boreholes**

Borehole 01 was sunk through the base of trial hole 01 and to an overall depth of 3000mm below ground level.

The soil located in the borehole was firm light brown clay which appeared to be moist but it did not show any particular signs of wetting or drying at the time of our testing.

The borehole was stopped at 3000mm below ground level due to adequate ground conditions.

Five soil samples have been retrieved from this borehole and sent to the laboratory for analysis.

Borehole 02 was sunk through the base of trial hole 02 and to an overall depth of 3000mm below ground level.

The soil located in the borehole was firm/stiff light brown clay which appeared to be moist but it did not show any particular signs of wetting or drying at the time of our testing.

The borehole was stopped at 3000mm below ground level due to adequate ground conditions.

Five soil samples have been retrieved from this borehole and sent to the laboratory for analysis.



# Section 6.04

# Soil Testing

A total of ten samples of the subsoil have been taken and sent to the laboratory for analysis. This comprises five from borehole 01 and five from borehole 02 and upon the receipt of this data we will advise further.

The purpose of the testing on this occasion is to try to determine some of the physical characteristics of the soil which will include, amongst other tests, the clay content and plasticity index of the soil, and if appropriate the extent of any desiccation. This test gives an indication of the likely degree by which the soil will shrink and swell with changes in moisture content, and the extent of any deficiencies.

# Section 6.05

#### **Roots Analysis**

No root samples were taken on this occasion.

#### Section 6.06

#### **Ground Water**

Ground water was observed at approximately 1000mm below ground level; however, this did not appear to affect the consistency of the clay subsoil.



# SECTION 7.00

# **DISCUSSION**

The damage within the structure is detailed under Section 5.00 of this report and where this is located within the internal fabric of the building, it is considered that its cause is primarily related to thermal movements between differing building materials, together with a small amount of plaster shrinkage which was noted to the rear left hand corner of the first floor sitting room.

The main area of damage is within the right hand flank wall of the single storey projection and this appears be tilting outwards. From our investigations thus far, it appears that there has not been any foundation movement as the soil samples retrieved from within the boreholes were of firm/stiff light brown clay which was moist and did not show signs of over wetting or drying. Samples have, however, been retrieved and sent to the laboratory for analysis.

To the single storey flat roof, we noted a considerable amount of cracking to the rear right hand corner, this resulting in water ingress and damp staining which was noted internally within the dining room.

Following our inspection we consider that more research is necessary and our observations were inconclusive; as we believe that the movement within the walls may be subsidence or landslip related. Because of the contours of this site and the adjoining one; the right hand flank wall also has a retaining function in that it appears to support the soil of the garden of the neighbouring property - the surface level of which is approximately 1500mm below the roof line of the single storey parapet.

#### SECTION 8.00

# **RECOMMENDATIONS**

Unfortunately due to the unusual configuration of this house and the varying levels of the site and those which adjoin it; there was only a limited availability of places to excavate the trial pits and boreholes within the boundaries of the insured property. Therefore it will be necessary to revisit to undertake further investigations, some of which will be located within the grounds of the adjoining property; after permission for access is granted.

Thereafter, we will submit further samples of the soil to a specialist laboratory and upon the receipt of the results; we hope to be able to confirm our conclusions.

We are seeking any contact details which the Policyholder may have for the owners/occupiers of the neighbouring apartments and we will also make enquiries in this regard.



# Andrew Gamble ACIOB

For THE GRAHAM HIGH GROUP LIMITED

andrew.gamble@highgroup.co.uk

Encs: Site Sketch Trial Pit Sketches Photograph pages

Copy to: Mr Hampton