

BY E-MAIL ONLY

Mr D Clare
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QG1P213935

BRC/sp/7413

19 December 2015

ACTION: PAYMENT REQUEST

Dear Dave

122C Finchley Road, London, NW3 5HT

Thank you for your e-mail dated 7th December 2015 enclosing the results of the additional trial pit/borehole investigations undertaken by Auger.

For clarity I would summarise my review of the additional investigations under the following headings:-

1. Current Problem of Movement

- 1.1 As per our joint inspection of the property on 2nd October 2015 this matter concerns continued foundation movement of the left-hand two storey projection which includes the caretaker's bedroom, entrance lobby and utility room at ground floor level and Room 11 at first floor level.
- 1.2 A summary of the damage observed is contained within Appendix A to this report.
- 1.3 Crack repairs were completed during summer 2014.

During the latter part of 2015 slight cracking was noted to have returned. At that time it was considered the cracking may or may not have been caused by a further event of foundation movement and it was agreed that the situation would be reviewed after a period of 2 or 3 months to identify if the cracking worsened.

- 1.4 On 23rd April 2015 we undertook a detailed inspection of the property and found that cracking indicative of foundation movement had occurred at the following locations:-
 - i) At ground floor level adjacent to the door between the caretaker's room and the lobby area.
 - ii) At first floor level at the junction of the two storey left-hand side projection with the main building.

During our most recent visit on 21st October 2015 it was noted that additional cracking had occurred both internally and externally to the front elevation of the two storey side projection.

2. Tree Works Previously Recommended by Marishal Thompson

- 2.1 Within Appendix B is a summary I prepared regarding the tree works previously recommended by Marishal Thompson.

It is my understanding that TG1 and TG5 in the neighbour's garden have been removed.

In terms of the trees to the rear (T2, TG4, T5 & T9) it is my understanding that there was refusal by the Local Authority to allow works to these trees to happen.

3. Internal Trial Pit to Side Projection

- 3.1 An internal trial pit was progressed in the lobby area adjacent to the door opening to the caretaker's room.

Details of those investigations have been recently sent to you under cover of my letter dated 27th October 2015.

That letter enclosed all relevant reports obtained in this matter since 2012.

- 3.2 Within Appendix A is a plan confirming the location of the trial pit. The trial pit did not identify evidence of roots beneath the foundations to the internal wall between the lobby and the caretaker's room.

4. Auger Site Investigations

- 4.1 During our joint inspection of the property on 21st October 2015 we concluded that the only reasonable explanation for the return of cracking to the two storey left-hand side projection was the continued influence of trees and vegetation.

In particular we considered that the Lime was the most obvious cause of the continued movement/damage bearing in mind the initial site investigations progressed by Bowbuild in 2012 confirmed roots from the Lime tree extending to a depth of at least 2.65m to the rear of the two storey side projection.

For completeness a copy of the site investigation report prepared by Auger is contained within Appendix D.

- 4.2 The site investigations undertaken by Auger confirm the following:-

TH1

Location	=	Right-hand side of two storey side projection within enclosed area.
Soil	=	Clay of very high plasticity.
Root depth	=	At least 2.5m
Root identification	=	Lime (four roots tested)
Moisture content profiles	=	No evidence of desiccation.
Driscoll's relationship	=	No evidence of desiccation

Odometer results	=	No evidence of desiccation
Comment	=	Water ingress into the borehole happened after 20 minutes. It was considered this was due to the sloping site to the rear.

TH2

Location	=	Left-hand side of two storey side projection within enclosed area.
Soil	=	Clay of very high plasticity.
Root depth	=	No roots encountered
Root identification	=	No roots encountered
Moisture content profiles	=	N/A.
Driscoll's relationship	=	N/A
Odometer results	=	N/A
Comment	=	None

TH3

Location	=	Front left-hand corner of main building.
Soil	=	Clay of very high plasticity.
Root depth	=	No roots encountered
Root identification	=	No roots encountered
Moisture content profiles	=	N/A.
Driscoll's relationship	=	N/A
Odometer results	=	N/A
Comment	=	None

5. Discussion

5.1 Based on my inspections of the property on numerous occasions and the very extensive site investigations that have been undertaken in this matter since 2012 it is my opinion that the return of cracking to the left-hand side extension is happening as a result of foundation movement which in turn is happening as a result of the influence of roots from adjacent trees and vegetation.

5.2 The site investigations have confirmed the presence of a shrinkable clay beneath the foundations. The clay is of sufficient strength to adequately support the foundation loadings.

The foundations are of good quality construction.

- 5.3 Roots have been confirmed to significant depth beneath the foundations to the left-hand side projection. Laboratory testing has confirmed the presence of Lime roots.
- 5.4 Within Appendix E are extracts from the monitoring regarding movement between the left-hand side projection and the main building.

The crack width monitoring between November 2012 and March 2014 confirms cyclical movement up to 4.8mm.

The accurate level monitoring confirms cyclical movement of 18.6mm.

- 5.5 No other factors have been found in the ground which could be causing foundation movement and in particular cyclical foundation movement other than the influence of the surrounding trees and vegetation.

Bearing in mind the neighbour has removed their trees as recommended by Marishal Thompson then the cause of the recent movement can only be the trees to the rear which the Local Authority have previously refused to allow to be actioned.

6. Recommendations

- 6.1 It is my opinion that the only way to ensure long term stability of the left-hand side projection to the building is to remove the influence of the trees to the rear.

7. Payment Recommendations

- 7.1 We would request that the payments as per the enclosed Financial Summary No. 10 are discharged as soon as possible.

Yours sincerely

BRET CHAMPION
PYLE CONSULTING

Enclosures