morphstructures

consulting structural and civil engineers

Ref: 2113/DR

4th December 2015

Simon and Melissa Lewis 16 Chalcot Square London NW1 8YA

by email

Dear Simon and Melissa,

16 Chalcot Square, London, NW1

STRUCTURAL REPORT

Further to our recent visit to the above property on 26th November 2015 we are writing to confirm our observations regarding the evidence of structural movement to the property.

The property is a traditional a five storey Grade II listed Victorian terrace house which has been split into three residential apartments. The main apartment consists of the basement, ground floor and first floor with separate apartments on the second and third floors.

The original building is likely to have been constructed with timber floor and roof structures supported on loadbearing masonry walls founded on strip foundations. The property has been modified extensively over the years – these modifications include extending the property to the rear at basement level, removal of loadbearing walls at basement level to create open plan spaces (since infilled), addition of a new staircase to provide access to the upper apartments and the reconfiguration of the existing layouts at second and third floor for use as separate dwellings.

There is evidence of bomb damage in the local area and changes in the appearance of the masonry suggest that parts of the rear elevation have been rebuilt at some point.

There is also evidence historical movement to the front elevation, with some window sills sloping. This settlement appears to be historic and is likely to have resulted from a combination of the following factors:

- Minor differential settlement of the walls immediately following construction as a result of variations in the bearing pressures beneath the foundations.
- Differential settlement of the walls after damage to the adjoining property as a result of bomb damage.
- Seasonal movement of the building foundations as a result of variations in the ground water content.

In addition to the effects of the events described above, internally there is evidence that there has been historic settlement resulting in a level difference in the second and third floors, with narrow cracks visible around the stair well. These narrow cracks do not appear to be progressive and are likely to have resulted from a combination of the following factors:

- Settlement due to the removal of the loadbearing masonry walls at basement level as part of the structural alterations during the late 20th century.
- Alterations to the original spine wall to introduce a new staircase to provide access to the upper apartments.

40 Bowling Green Lane, London, EC1R 0NE

- T +44 (0)20 7415 7032 E mail@morphstructures.com
- F +44 (0)20 7837 7612 W www.morphstructures.com

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To level out the existing second and third floors we propose to retain the existing floor joists but introduce new timber joists in between to re support the existing floor joists.

Please refer to the attached site visit record and sketch for proposals.

We hope this proves sufficient at this stage, we would obviously be more than happy to assist further should this be required. Please phone if you would like to discuss anything further.

Yours sincerely

Elena Marshall for and on behalf of Morph Structures

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F

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