

ENGINEERS SURVEY REPORT TO

**ELMSDALE HOUSE, 31 THE GREEN, MONEY LANE
WEST DRAYTON UB7 7PN**

FOR NAVIN VALAMOOTOO

PREPARED BY PRADEEP GUPTA - MIStructE, CEng.

DATED – 15TH June 2021

Engineers Inspection Report.

1.0 Scope of Report.

- 1.1 Mr Navin Valamootoo commissioned this report. The report was to assist in the process of purchasing the property.
- 1.2 We were provided with Christopher Thomas to let/ for sale details for the property and vkhp-consulting civil and structural engineer's feasibility report dated 28th May 2021.
- 1.3 We were to prepare a report based on a visual inspection.
- 1.4 We carried out our inspection on the 9th June 2021.
- 1.5 No responsibility is accepted for any reliance placed on this report by others.
- 1.6 This report is not a schedule of all the relevant defects. It is also not a list of defects which are not relevant to the purpose of the report.
- 1.7 When describing the property, it would be as we are facing the front elevation of the building.

2.0 Description.

- 2.1 The building is a circa 1800 Grade II listed, three storey detached building with gross internal area of 278 square meters. There is a cellar under part of the building to the rear left side. The building was originally a manor house and is presently been used as offices. The building is double fronted with gable walls to both the flanks with internally projecting chimney stacks. The right flank wall to the building is enclosed by the adjoining building 33 the Green. There is a porch to the front elevation with a flat roof over. There is a mansard roof over the building with an internal valley to the middle. There are dormer windows to the mansard to the front and the rear elevation. There is a dormer to the internal valley to the roof to provide maintenance access. There are boundary walls to the front, left side and rear courtyard. There is parking to the rear courtyard.
- 2.2 The external walls to the building vary in thickness from 450 to 215mm solid London stock facing brickwork. The internal walls are a combination of 335mm to the cellar and 280mm solid brickwork to the ground floor spine wall. The remaining internal walls are original 170mm and recent 130mm timber studwork. Some of these walls are load bearing while others are non-load bearing. The roof over the building is traditional cut timber framed trusses with natural slates over. The ground and all upper floors are suspended timber floors.
- 2.3 The above ground foul water drainage to the building is located internally to the rear left side of the building and surface water externally to the left side of the building.

The below ground drainage to the building is to the rear left and left side of the building. This drainage returns to the front of the building.

3.0 Observations, Assessment and Conclusion.

- 3.1 Inspection of the front elevation of the building indicated substantial movement to the left side of the building. This movement is present between the top of the ground floor left side window and the first-floor window directly above. This cracking is present in the flat soldier arch over the window, the relieving brick arch over the window and the brickwork between the windows. The sagging pattern of movement indicates inadequacy of the possible timber lintel over the window. The movement, although historic may be ongoing. I would therefore recommend the lintel over the window opening should be replaced with an adequately sized lintel. This will minimise any further movement. This work will need to be carried out very carefully without further disturbing the relieving arch. The external cracks, except for the flat arch and relieving arch can then be stitched across using helibars. The cracks to the flat arch and relieving arch can repointed as best as possible
- 3.2 The inspection of the remaining front elevation indicated hairline vertical crackling above the ground floor right side window and the first-floor middle window. There is also cracking to the brickwork under the ground floor left side window These cracks should be stitched across using helibars.
- 3.3 Inspection of the rear elevation indicated substantial movement to the ground floor right side window. There are vertical cracks from the ground level and damp-proof course level to the window. These cracks are due to the differential settlement of the wall to the cellar and the non-cellar. The flat arches over some of the other windows have also sagged due to the inadequacy of the timber lintels over the window openings. I would recommend any cracks visible externally should be stitched across using helibars.
- 3.4 To the left side elevation there was approximately vertical cracking between the ground, first and second floor windows. This is due to the wall bowing significantly. The reason for this is the lack of horizontal restraint from the floors to the wall as the floor joists are spanning parallel to the wall. I would recommend that the wall is tied back to the floors and the external cracking is stitched across using helibars.
- 3.5 To the rear corner of left side boundary wall where it meets the curved boundary wall. The curved boundary wall is leaning outwards by 25mm at the top of the wall. There is also diagonal subsidence mode cracking to the bottom of the left side wall. This is due to the large shrubs in the adjoining planter with inadequate foundations to the wall. Trial pits will need to be dug to establish the foundation profile to the walls. The large shrubs will need to be removed and remained shrubs will need to be managed to ensure that they remain small. The walls will need to be underpinned locally, tied back to prevent any further lean and cracks will need to be stitched across using helibars.

- 3.6 The internal inspection of the building indicated distortion to the door frame to the first-floor left side front office. This is due to the inadequacy of the first floor to support the partition to the door.
- 3.7 The front rainwater downpipe to the left side wall is blocked at the hopper head with vegetation growth. This downpipe is also leaking along its length causing dampness to the wall. The below ground water drainage is also blocked. I would recommend that the both the drainages are maintained in a satisfactory condition permanently.

Pradeep Gupta



Front elevation



Front ground floor window head



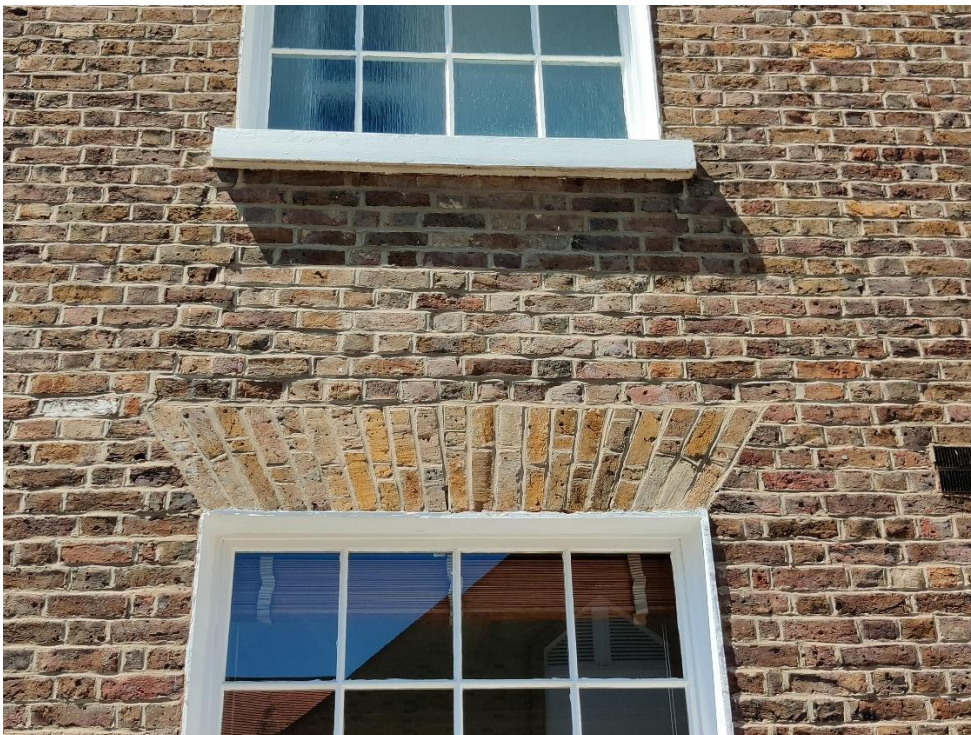
Front ground floor window cill



Rear Elevation



Rear right ground floor window cill.



Rear ground floor window head.



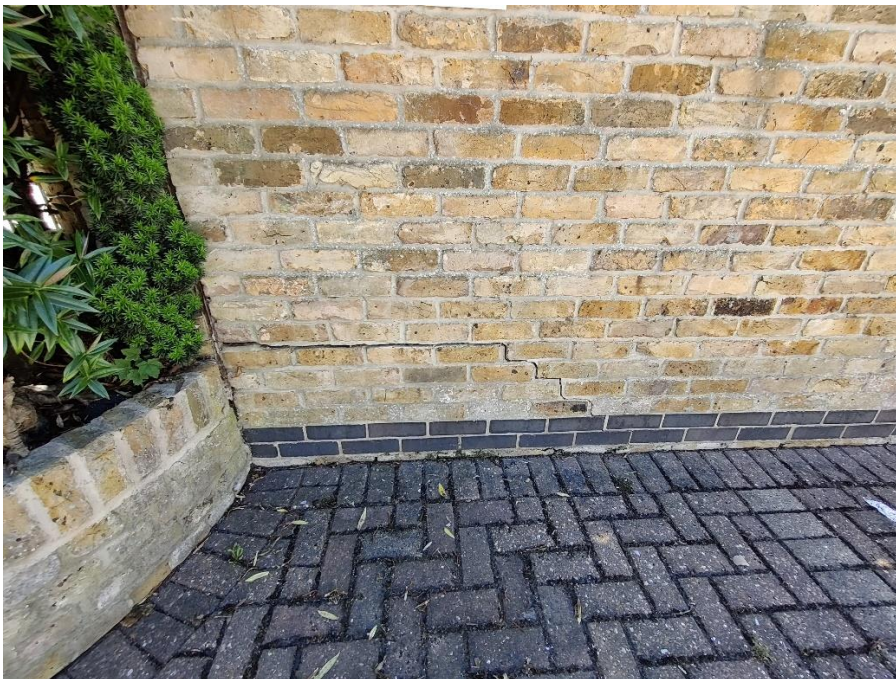
Left side elevation.



Left side ground and first floor window



Left side boundary wall at junction with curved rear wall.



Subsidence to boundary wall.



Distortion to first floor front left side door.



Internal valley gutter to roof.



Blocked rain water downpipe.



Below ground drainage manholes to rear.