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REPORT ON CONDITION

44 Downshire Hill, London NW3 1NU

Aim:

1 This an outline report to investigate apparent recent structural movement in the above building and to recommend what if any action should be taken.

Limitations:

1 It was prepared after a limited visual survey of the lower two floors of the building and after discussions with Clients.

2 No test holes were dug and no opening up or invasive tests of the structure or fabric were done.

3 There are currently no monitoring devices fitted to the building.

History:

1 The house, one of a pair of semi-detached listed Georgian 4 storey houses is of traditional construction of rendered soft brick external (13") and spine walls (13") with a slate London roof. Early in the 19th century and probably within 20 years of its initial construction an infill side 3 storey side addition entry hall and stairwell was added thus making the N flank wall a spine wall and forming a terrace with #43. Additional loads were place on the spine wall at that time.

2 In the late 19th century drainage was laid adjacent this spine wall under the floor of the lower ground floor hallway with limited back fill compaction. It is highly likely that the subsidence began at that time but that is author surmise and there have been other contributing factors.

3 The house has suffered from intermittant subsidence for many years. The general trend has been for settlement in the NE corner area of the building and the historic slopes of the floors on the upper ground floors reflect this.

4 Over the years there have been various repairs to the external fabric, such as rebuilding distorted window arches and part replacement of lintels.

5 Some 12 years ago a single storey rear addition WC and access hall on new foundation was built. Drainage toadjacent the NE corner was found to be defective and replaced. Around that time the adjacent house to the north (#43) was completely underpinned.

6 The house was externally repaired with cracks in the external render filled and walls redecorated in 2001.

7 The lower ground floor comprising kitchen, family room, side access hall and service areas were surface refurbished with a new kitchen and floor coverings installed at the same time.

8 Also at that time the family room defective rear suspended timber floor was replaced with a 150mm insulated slab floor. No other structural work was carried out at that time.

9 The general policy over the last 24 years has been to monitor and occasionally inspect with a conservative view taken to avoid underpinning if possible. There has however been an awareness that if the subsidence became too rapid or any instability became apparent then that policy would have to be reviewed. The house has been owned by the Leifer family for that time.

Observations:

12 Since the redecoration in 2001 until 2006 there has been little cracking visible. Late 2006 and early 2007 some cracking was seen by the occupants. My inspection on the 11th Jul 2007 found a series of new cracks and evidence of vertical movement in sections of both the external front and rear walls and the internal spine wall.

13 The major cracks are as follows:

13.1 Front façade roughly vertical from lower ground level - 2 storeys between P & Q with some evidence of vertical drop of wall section around point P.

13.2 Lower ground spine wall at Z and L-K door

13.3 Cracking at ceiling level with approx 3-4mm separation of main wall at H from "new" cloakroom walls.

13.4 Some cracking at window head externally 3rd floor above H.

13.5 Some cracking at window heads externally 2nd and 3rd floor above Q-R.

14 It appears that the spine wall P-M-H is rotating very slightly and has dropped approx 2mm to 4mm over the last 6 months. The arched window lintels have opened up at the bottom of the arches an indication the spine wall has rotated very slightly towards '43. All this movement has occurred over the last 8 months and while the cause cannot be confirmed I think that the dry weather last summer 2006 may have been the driver.

15 The area of walls at Q-P-Z, Z-M-L and K-L-G are all cracking into sections and settling slightly with K-L-G the worst and Q-P-Z the least. These wall sections appear to be now acting as independent tall piers with cracks right through the walls leading to the possibility of an increase in the instability of those wall sections if much more movement occurs. This is to me the major medium term concern as loss of wall integrity may follow because of the age of the bricks and mortar. If that becomes the case then major crack stitching will be needed after underpinning the walls R-Q-P-Z-M-L-K-H-G-F and M-N.

16 There is also the fact that the continuing loss of ceiling height in the rear corner K-H-G of the Family room, through the door L-K and in the Hall adjacent may need to be stopped by preventitive underpinning.

16 There appears to be no cracking or relative vertical movements in the areas R-A_B-C-D-E -F which incorporates sections of wall with bigger foorings of fireplaces B and D.

17 Both single storey lobbies appear stable as does the party wall S-T.

Reccommendations.

1 Place crack indicator pegs at P-Q high and low, Z near ceiling, L-K near ceiling and H near ceiling.

2 These indicators should be monitored and check measured every 3 months for the next year.

3 Review the situation if there is any more movement and in any event review the situation in 6 months.

4 Notify the Insurers of this recent movement.

Scott Mac Gregor
Jul-07