

Private Client
Private Address

July 2021

Sent to *Private Client* via email

Dear *Private Client*,

Private Address

20.XXX // Specific Defect Inspection: Cracking to two storey external wall and damp to first floor bedroom ceiling

We have completed our inspection of the above property on July 2021 and outline our findings below, in accordance with our Engagement Agreement dated July 2021.

Property Description

The property is a semi-detached property built circa 1937. To the property there is a two storey side extension constructed circa 1978 and a rear single storey, conservatory and porch extension constructed circa 1981. The property is laid out over two storeys.

External and Internal Walls

Our suggestion of the wall construction is based on the age of the building alongside characteristic features of the property, such as the width of walls and the brick bounds of the external walls. To conclude the wall construction definitively would require invasive opening up of the building fabric or inspection via a borescope, which we have not undertaken. It would, however, be unlikely that the construction would differ from that outlined below.

The property is of a load bearing masonry construction, with fair faced brickwork to the upper section of the front elevation and side elevations. The rear elevations comprise a combination of painted brickwork and render finish.

We have not undertaken any invasive inspection of the external or internal walls. However, due to the age of the property and subsequent extensions, we assume the external walls to be of a cavity construction with a cavity between the internal and external masonry.

Internal walls to the ground and first floor appear to be a combination of load bearing masonry and stud partition provided with painted plaster skim finish.

We noted stepped cracking, approximately 1-2mm in diameter at the top right and left hand corner of the first floor window aperture to the external wall. The direction of the cracking would suggest differential rotational movement has occurred to the front elevation.



Brickwork to front elevation first floor window.



View of brickwork to front elevation garage lintel.

Additionally, we noted stepped cracking of a similar nature to the top right hand corner of the garage door aperture and corresponding hairline stepped cracking to the side elevation origination from the ground floor side elevation window serving the garage. The size and direction of the cracking indicates that rotational movement of the property is generally localised to the front corner of the two storey extension.



View of cracking to side elevation window.



View of stepped cracking below side elevation window.

We noted surface water drainage inlets and inspection chamber to the pathway bounding the side elevation. Whilst we are not able to confirm the location of the property drainage, we would assume the below ground drainage runs along the side of the property to the public sewer located below the public highway, as is conventional for properties of this type and age.



View of defected coverings to external pathway.



View of drainage inlet to side elevation.

Additionally, we noted cracking to the concrete screed to the side path and undulation to the brick paver covering within close proximity to the front corner of the side extension, indicating issues with the below ground drainage.

Due to the apparent close proximity of the drainage to the foundation of the property, we anticipate the movement to be due to a failure of the drainage, causing erosion of the soil supporting the foundation over a prolonged period causing localised subsidence.

We did not note signs of structural movement to adjoining properties. We do not anticipate at this stage that the subsidence is likely to be caused by local ground conditions and mine workings in the area, subject to further investigations recommended.



View of cracking internally to plasterwork.



View of plasterwork to first floor.

Internally the first floor rooms are finished with a painted plaster skim. The plaster exhibits hairline cracking to the internal walls and ceiling to the first floor bedroom. The majority of the cracking noted appears to be crazed in pattern, which would suggest this is due to poor workmanship upon installation.

There are several hairline cracks which appear to largely follow board joints, which are likely caused by a combination of localised movement noted above and poor workmanship/ shrinkage following construction. Several cracks appear to have been filled with a repair compound, which appears intact, which would suggest any movement historically is no longer progressive. We therefore anticipate only superficial repairs will be required prior to redecoration.



View of cracking internally to plasterwork.



View of plasterwork to first floor.

We have not undertaken invasive measures to inspect the sub-floor voids, however we anticipate the ground and first floor comprises a suspended timber construction. The first floor to the front bedrooms are generally level with obvious defects, indicating no significant movement has occurred previously to affect the overall floor construction, which would correspond with our view that any movement is localised and unlikely to significantly affect the property.

We noted staining and deterioration of the plaster finish to the ceiling within the first floor bedroom adjacent to the front wall. This appears to have been caused by a prolonged leak to the flat roof covering above. The roof void was partially accessible via the damaged plasterwork aperture, and we did not note any signs of significant damage or rot to the timber joists or roof deck.

The plasterwork generally appears dry. Moisture meter readings were taken of the area which corroborated this assessment. We therefore anticipate the damage to be caused by a historic leak which has since been remedied.



View of damage to plasterwork.



View of flat roof void.

The two storey side extension is provided with a flat roof comprising a timber construction with what appears to be mineral felt covering externally. The roof covering was not visible externally and we are therefore unable to provide a definitive comment on its condition, however, we did not note any indications internally which would suggest the covering requires immediate remedial works.

Conclusions and Recommendations

Based on our observations, minor localised structural movement appears to have occurred to the front corner of the two storey extension to the property. We recommend that a CCTV survey is undertaken to confirm the condition and location of the below ground drainage and advise on any remedial works required. At this stage, we anticipate the movement noted to be relatively minor and is likely to be stabilised following repairs to the drainage system. Minor repointing of the external brickwork will be required following remedial works.

Subject to drainage survey findings, further invasive investigations may be required to expose the underlying construction to determine the extent of the movement and underlying cause. It may be beneficial to engage a structural engineer to undertake a further invasive survey and provide advice regarding ongoing management, monitoring and remedial works in the event the CCTV survey findings are inconclusive.

We recommend damaged plasterwork to the first floor ceiling is cut away and all timber elements to the flat roof substructure are treated with a preservative treatment to mitigate the risk of rot outbreak. Plaster boarding and skim should then be reinstated prior to redecoration.

We trust the above is satisfactory, however, if you do wish to discuss the findings of the report in more detail, please do not hesitate to contact me.

Yours sincerely

A handwritten signature in black ink that reads "J. Weston".

Joshua Weston BSc (Hons) MRICS

For and on behalf of Fourth Wall Building Consultancy
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CC Annie Buckley – Fourth Wall