

27 January 2025

Ref: FC:2025/09

Mr M Dunlavy
1 Nursery Gardens
Stairfoot
Barnsley
S70 3DS

Dear Mr Dunlavy

Re: Re: Purchase of property 1 Tivy Dale Drive, Cawthorne, Barnsley

Further to your recent instructions I confirm having carried out an inspection of the above property on 20th of January 2025 to specifically appraise concerns over structural damage.

This report must therefore not be read as that which represents a full structural survey of all construction components. We have not exposed foundations, tested serviced nor examined concealed areas of structure, including woodwork, and therefore unable to confirm that all such areas are entirely free from defect.

The property comprises a traditionally built bungalow of conventional construction with brick cavity walling beneath a moderate double pitched roof formed to both gable and hipped ends. The property is thought to date late 1960s or early 1970s and has been later extended to the front and rear with flat roof construction forming a garage to the front and sitting room at the rear. Internal walls are substantially solid construction. Reference is made to floor layout Fig.2.

The property sits on a gradually sloping site which declines gently in elevation from front (East) boundary to rear (west) boundary. Fig.1.

Freeman Consultancy are instructed to comment on structural damage noted by the proposed purchaser of the property. This is limited to observations to internal and external walls only.

Observations.

Internal inspection reveals numerous fractures across ceilings at wall and ceiling angles. Damage is also apparent above some door casings and window heads.

Maximum crack width are measured at around 5mm and all appear to be associated with ground movement.

External examination reveals damage to external leaf brickwork, notably affecting the left flank wall against bedroom 3 and bathroom fig 2 together with slight damage to the rear elevation where the rear extension abuts the original. Maximum crack widths are in the region of 4mm.

The side wall damage suggests slight rotation of the foundation below bedroom 3 window, as evident by slight lipping of the lower masonry below the fracture lines.

The damage is all consistent with slight settlement or subsidence of the foundations and its likely cause is considered to be due to the close proximity of mature trees against the north boundary, resulting in a degree of clay contraction and rehydration. In association, this may have also caused damage to the adjacent drainage system resulting in an escape of water and this would require further investigation.

Summary and recommendations.

This report is based on a single non-destructive investigation and does not represent a detailed inspection of all parts of the property as stated above.

Both internal and external damage represents slight foundation movement. The damage is classified as being slight in structural engineering terms and reference to BRE Digest 251 'Assessment of damage in low-rise buildings' and all falls within Category of damage 2 of Table 1 of that document.

Whilst ground investigations nor monitoring has been carried out, we strongly suspect that the property has relatively shallow foundations sat onto a clay or cohesive subsoil. A Coal Authority report indicates low probability of shallow mineworking.

The close proximity of the mature trees growing against the north boundary in particular is likely to influence ground conditions and we suspect trees marked T5, T6 and T9, shown on fig.3 as being of most influence.

The damage has not severely impaired the stability of the property but is such that this may affect insurance cover and future saleability. We were therefore recommended that ground investigations are undertaken to expose the foundation and subsoil to confirm our postulations.

it would be beneficial to consider removal of trees T5, T6 and T9, which have been identified as of moderate amenity value, subject of course to planning consent being granted.

In addition to the two mature trees, we also suggest removal of the low hedging immediately adjacent to the property against the North and East elevations.

We note drainage and pipework in the area of the damage and it would also be beneficial to expose pipework close to the property to check its adequacy and ensure that no escape of water has occurred. Root encroachment can often cause breakage of collar joints and cause pipe displacement leading to a long-term escape of water. Any damage found should be suitably repaired.

A period of monitoring should then be undertaken followed by repairs which will include an element of masonry realignment and mechanical stitch bonding works.

Internal fractures can be repaired via normal cosmetic procedures prior to redecoration.

We would reiterate that the property's overall stability has not been severely impaired, however the above works are considered appropriate.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Roy Freeman', with a large, stylized initial 'R'.

Roy Freeman BSc(Eng), CEng, CBuildE, MIStructE, MICE, MCABE
Consulting Structural Engineer

Freeman Consultancy



Fig. 1 Site Location

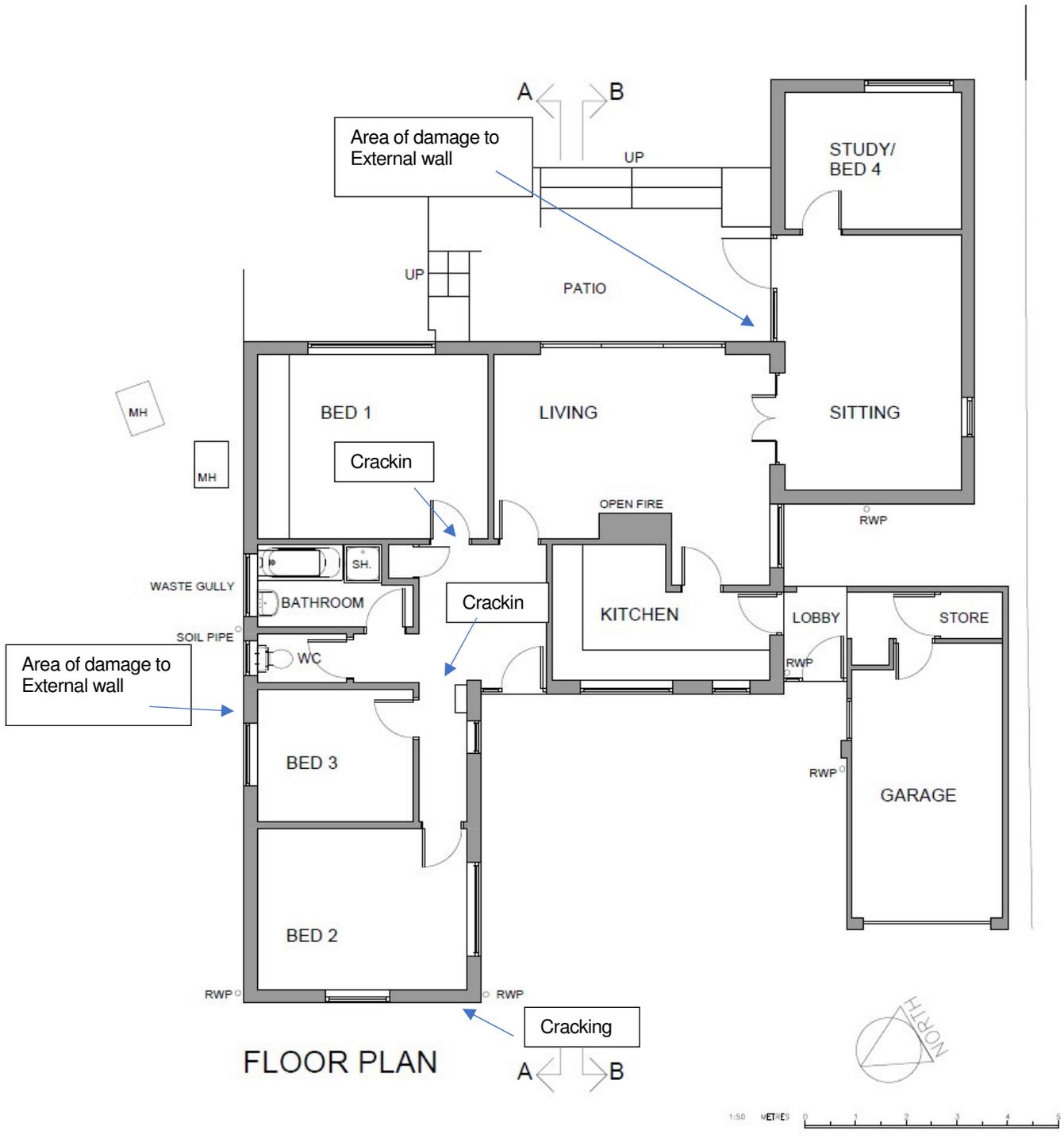


Fig. 2 Floor Plan



Fig. 3 Tree Plan

Photographs



1. Front elevation



2. Damage under bed 3 window



3. Slight lateral displacement



4. Step fractures



5. Slight step fracture



6. Slight differential movement of rear extension



7. Parting to wall/ceiling angles



8. Diagonal cracking over internal doors



9. Minor cracking to wall angles



10. Cracking across ceiling



11. Cracking at ceiling board joints