

Loarie Boarer  
Clare Lallow Ltd  
3 Medina Road  
Cowes  
PO31 7BU

Email: lallows@lallowsboatyard.com

Our Ref: 23518/JL/PLA

Date: 19 January 2024

Dear Loarie,

**Re: Lallows Boatyard, 3 Medina Road, Cowes**

We visited the above property, at your request, on 6<sup>th</sup> December 2023 to undertake a structural assessment of the rear right hand side structure of the site.

Our inspection was visual only and no opening up works were undertaken.

Descriptions of buildings are as if standing in Medina Road facing the boatyard. Descriptions of individual items, e.g. windows, are as if standing in front of the item under discussion.

**Survey**

The boatyard is formed of a collection of buildings and adjacent shipways, refer to Image 1. The building under discussion is highlighted in red.

The structure is two storeys and has external masonry walls, 215 solid brickwork, supporting a timber first floor and timber roof structure. The roof covering is a profiled sheet.

**Upper floor**

The upper floor has been fitted out with small stores against the long elevation walls.

Image 2 shows a general view to the underside of the roof structure.

Image 3 shows a view on the gable wall with spalled bricks and minor cracking.

Image 4 shows the wall plate. Damage noted was horizontal cracking to the masonry and significantly spalled bricks. A movement outwards of the bricks directly under the plate can also be noted.

Images 5 and 6 show the masonry wall at upper floor level. There are areas of damp and cracking to the brickwork. A lateral movement to the masonry can also be noted with Image 5 showing unseated floor joists.

To the rear elevation a steel strapping plate has been installed to re-support the masonry, refer to Image 7.

## Ground floor

Image 8 shows a general view at ground level. Windows are located on the long elevations.

The lateral movement of the external long elevation wall has caused the floor joists to become unseated and their ends are propped, refer to Image 9. Deflection of floor joists can be seen clearly in this image.

A tie rod was noted between floor joists. This has been historically added. A patress plate can be noted externally.

The brickwork at ground floor level is in a poor condition. Spalled masonry, cracking and historical movement can be seen. Refer to Images 10 and 11.

## External

The right hand side elevation runs alongside the slipway, refer to Image 12, and the left hand side elevation has been roofed and forms part of the storage areas, refer to Image 13.

A significant dip can be seen to the ridge line, refer to Image 14.

The masonry to the right hand side elevation exhibits the same bow seen internally. Large areas of brickwork are significantly spalled and vegetation is growing in the wall, refer to Images 15 and 16, Areas of lost mortar can also be noted, generally below the high tide water line.

Towards the rear elevation a concrete plinth can be seen. This may have been added to provide a more robust foundation to the wall.

At the rear elevation the wall is founded on a mix of slabs and stone, refer to Image 17. There is also a steel strip which matches through to the internal strap, refer to Image 7. Image 17 also indicates diagonal cracking, spalled bricks, lateral movement and numerous areas of rebuilding/repointing.

The rear elevation has a triple door to access the slipway and timber cladding at the upper floor. No access was available.

The front elevation has limited access due to an adjoined building. The upper masonry shows signs of spalling and a potential bow inwards, refer to Image 18.

## **Discussion**

Significant structural distress was noted to the structure. The large bow in the masonry to the right hand side elevation has caused the upper floor joists to become unseated and require temporary support. This has also meant the elevation wall does not have a mid-height support. The bow has also caused movement to the roof structure, noted as lateral movement to the wall plate and distortion to the ridge. The most likely cause for this movement is a settlement of the foundations along the slipway.

The wall cannot be 'pushed back' into a vertical position so will require replacement. Similarly the floor joists will also require replacement. These works can only be undertaken when a new run of foundations has been dug and cast along the elevation. Similarly the roof will require significant repair and areas of replacement.

A large amount of temporary propping will be required to facilitate the works, (i) including sequencing of the dig, (ii) support to the existing ground and first floors, (iii) support to the roof, (iv) lateral support to the left hand side elevation and (v) support to the gable walls.

The works described above require undertaking as soon as possible to ensure no collapse of the first floor or elevation wall.

Very little of the original structure will remain after these works, and the Temporary Works will be costly. We therefore recommend that the safest and most cost effective solution is to demolish the existing building.

## **Conclusion**

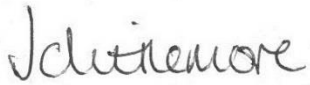
The existing building is in a poor state of structural repair with extensive rebuilding works required to make it safe. The Temporary Works required to facilitate the repairs will be extensive and costly.

We recommend the building is demolished.

We trust the report is clear. However, if you have any queries, please contact the office.

Yours sincerely,

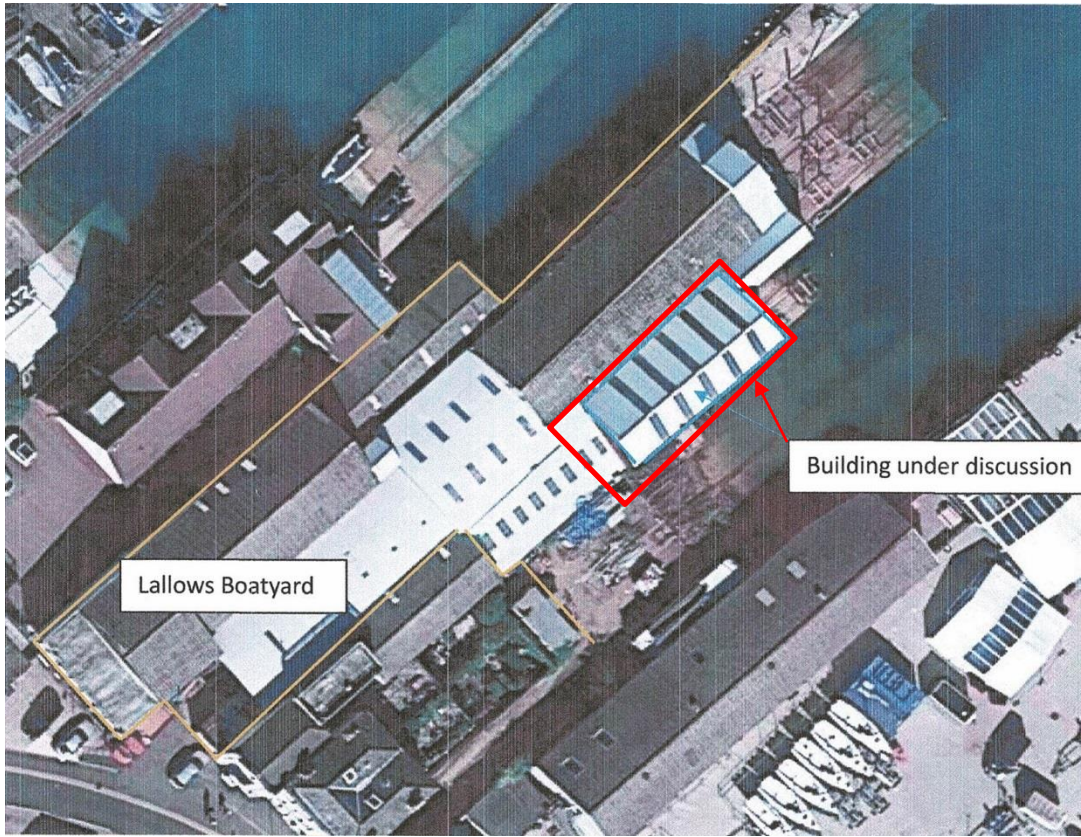
**HLS Structural Engineers Ltd**



**Julie Littlemore**

MEng (Hons) BA (Hons) CEng MIStructE





**Image 1** Plan of site.

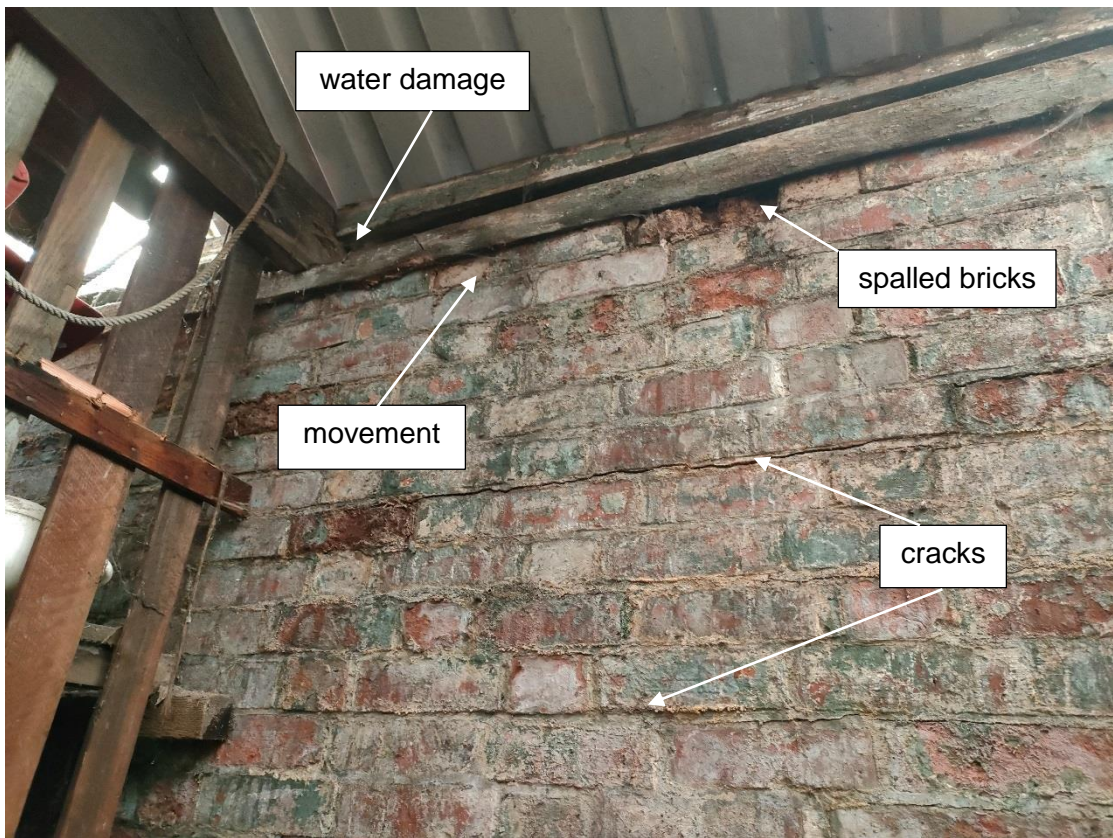


**Image 2** Upper floor, view on roof structure.



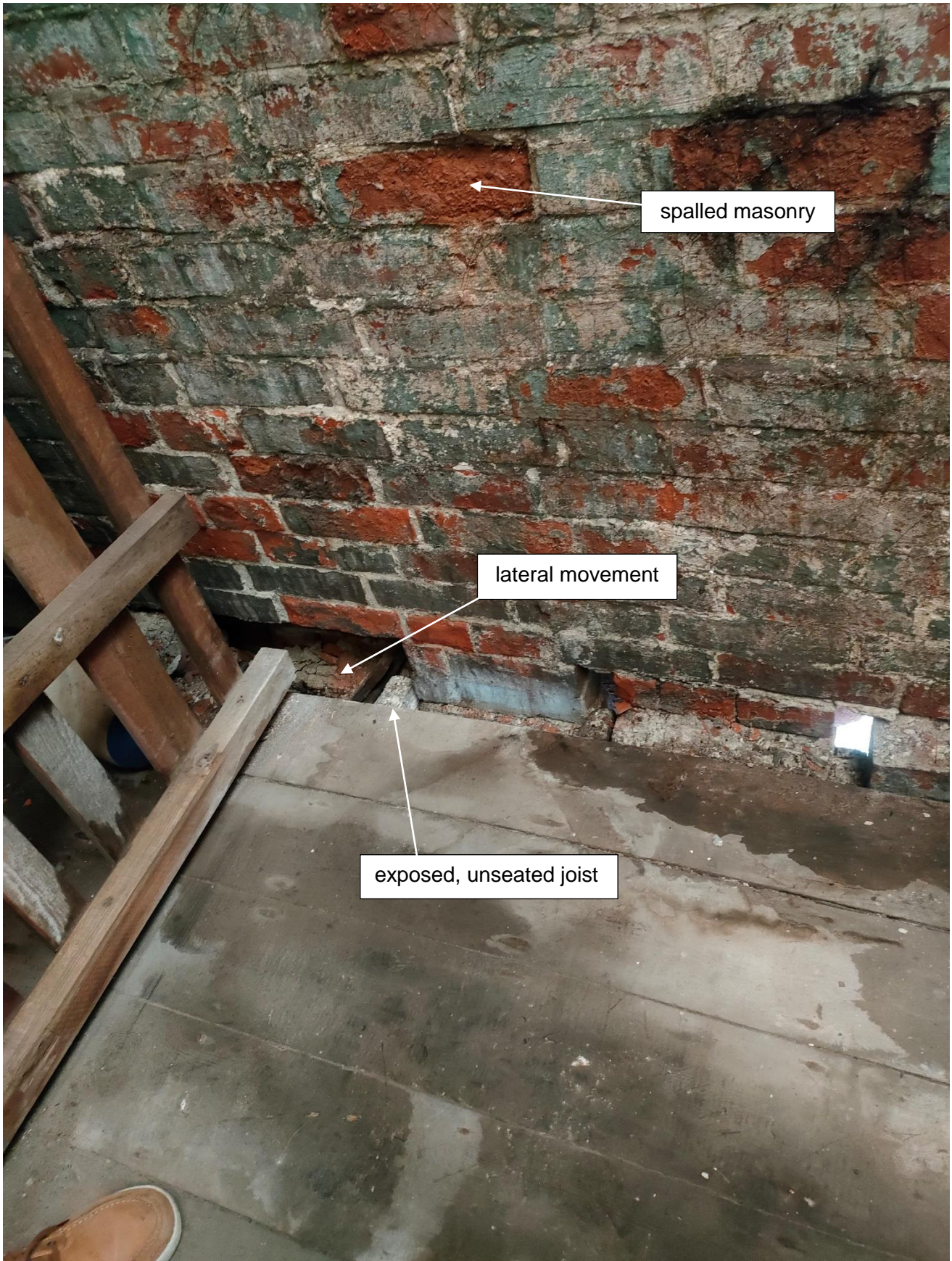


**Image 3** Upper floor, view on gable wall.



**Image 4** Upper floor, view at wall plate.





**Image 5** Upper floor, lateral movement at floor level.





**Image 6** Upper floor, lateral movement at floor level.





**Image 7** Upper floor, rear – steel strapping.



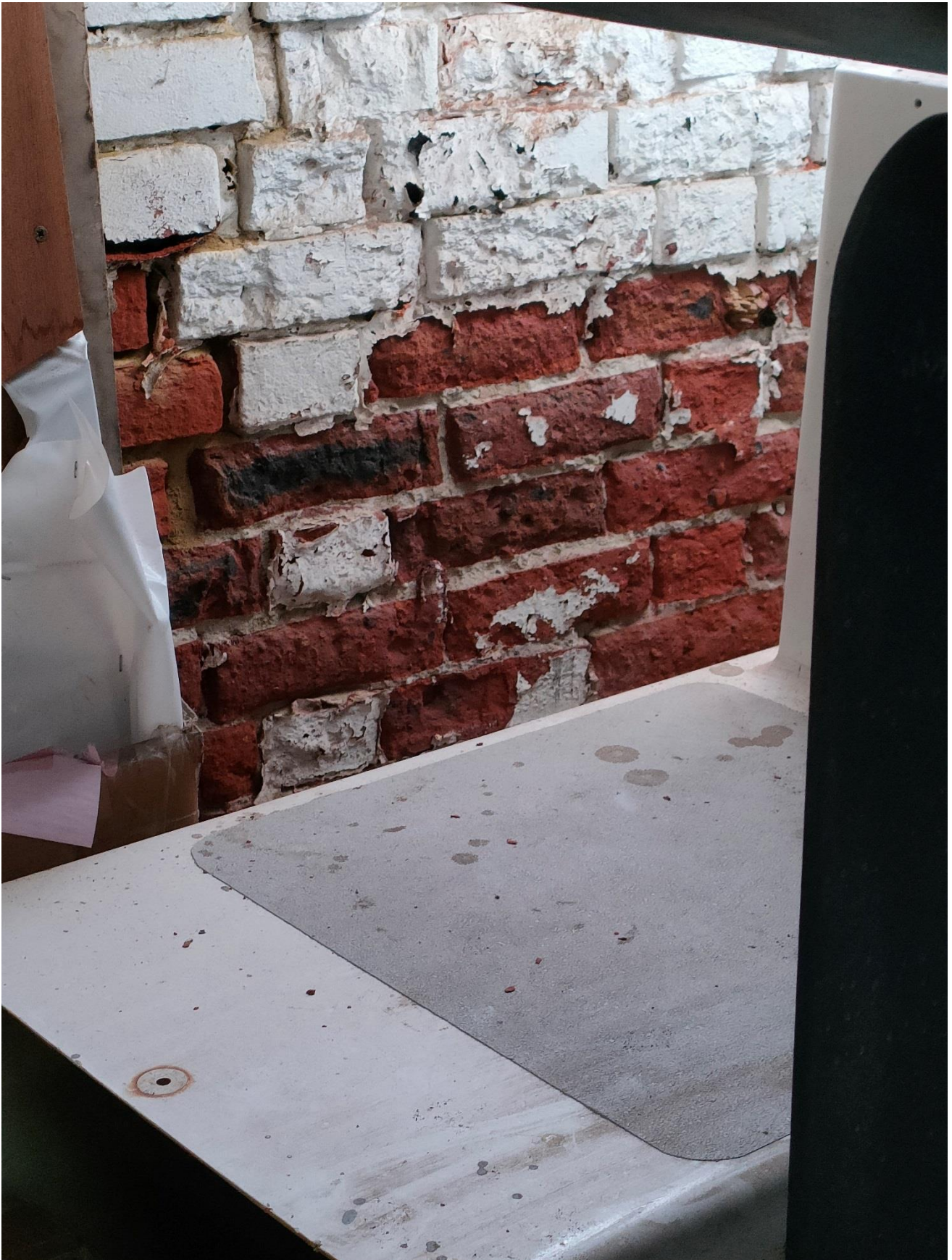


**Image 8** Ground floor, general view.



**Image 9** Ground floor, propped floor joists.





**Image 10** Ground floor – spalled masonry and historical movement.





**Image 2** Upper floor, view on roof structure.



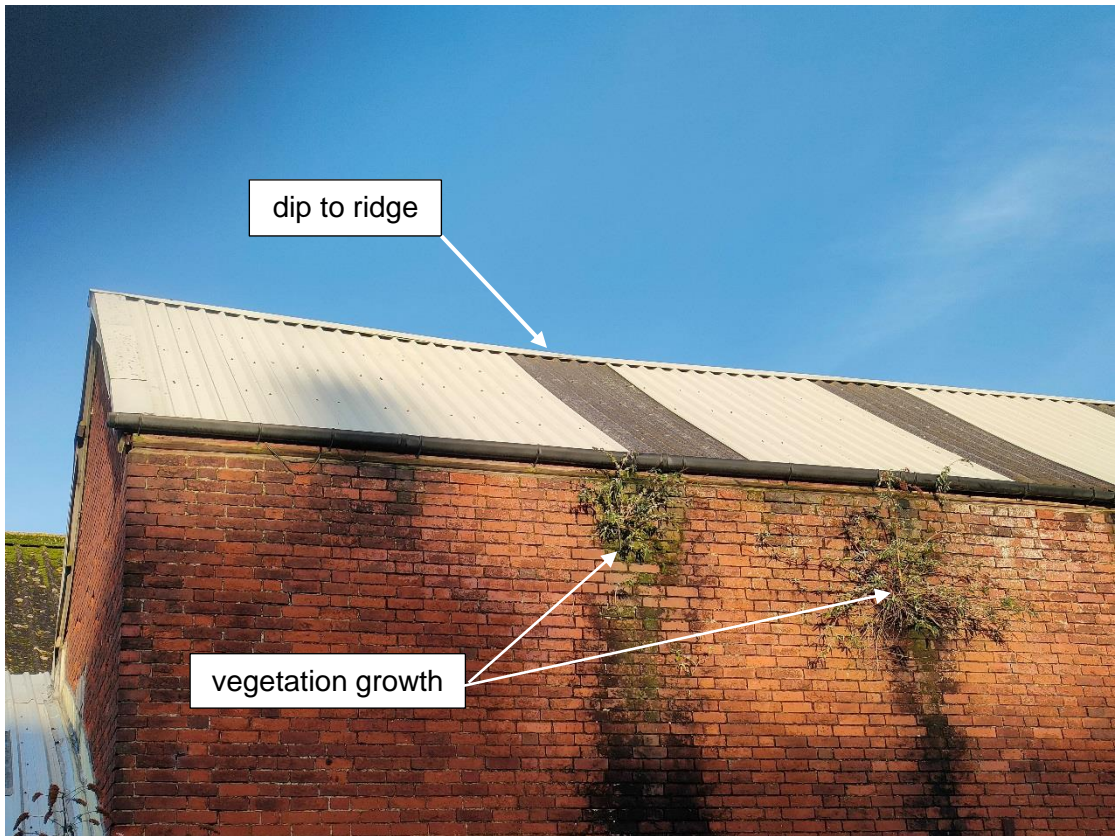
**Image 12** Right hand side elevation.





**Image 13** Left hand side elevation.





**Image 14** Profiled sheet roof – dip to ridge.





**Image 15** View along right hand side elevation showing significant spalling and bow.



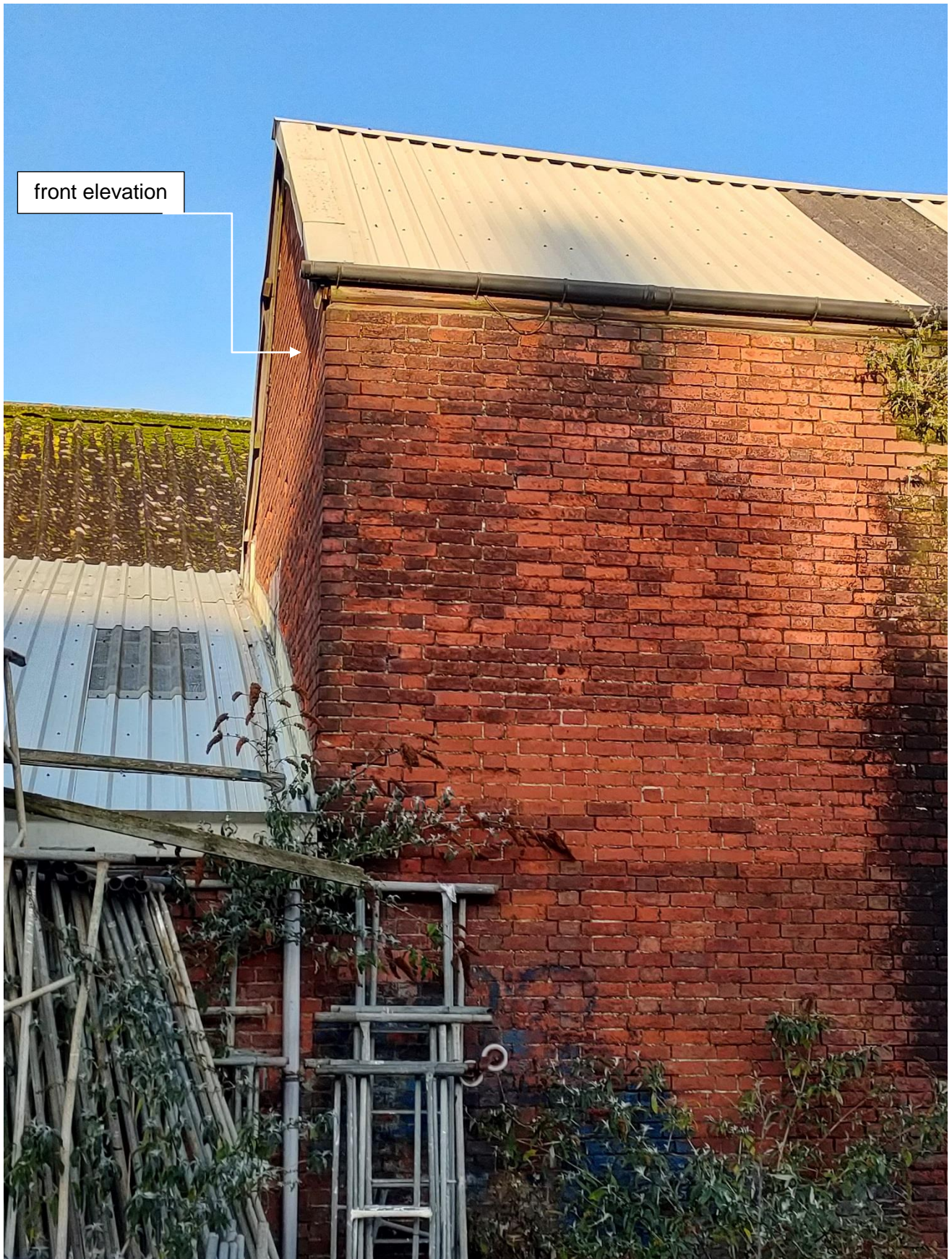


**Image 16** Right hand side elevation – spalled brickwork and loss of mortar.



**Image 17** Slab, stone and fill support to right hand side elevation wall to rear.





**Image 18** Front elevation.