

Andrew Rockett

From: [REDACTED]
Sent: 22 August 2025 10:37
To: 'Andrew Rockett'
Subject: Wroxton second draft

We write in relation to the works undertaken to stabilise the independent barn adjacent to the North Arms, Wroxton, with particular focus on the two comments from Cherwell District Council;

1.00– Rear wall

Clarification is needed on the works undertaken; what work has been done, how is internal wall attached ; full methodology and justification

And

3.00 - Steel framing

Justification should be provided for cutting of the existing beam to install steel framing ; justification and specification of steel frame is needed

We were originally instructed to appraise the existing building for structural stability and then to advise on necessary stabilisation work to ensure the long term viability of the building fabric and structure. The two items above are inextricably linked and so this commentary covers them both.

The building has a pitched roof with stone walls. The rear long wall parallel to the ridge also acts as a retaining wall to the neighbouring garden, which is around 3 to 4m higher than the ground floor of the barn. At the time of inspection, the rear wall was showing evidence of distress and movement resulting from the long term earth pressure from the garden behind. Walls such as this can remain in place for some time but also can, and often do, catastrophically collapse. Regardless of the desire to convert the building to partial habitable space, in my opinion the building could not have been left without structural intervention given the risk to property and persons both of the North Arms site, but also the neighbouring garden behind. Walls such as this, when embedded in the ground to this extent of depth, often comprise a full width stone wall above ground but only a single skin of facing stone to “tidy up” and enclose the natural ground face behind. We have seen many examples of this in this area.

Options were considered for stabilisation; excavating behind in the neighbour’s garden (subject to permission) and casting a new wall, taking down the wall and re-building with a concrete core, and casting a new wall in front of the existing, of sufficient strength to provide permanent support. Taking each in turn, We were of the opinion that excavation behind the existing wall, given its condition and the very strong likelihood it was only a facing wall below ground level on the high side would be very likely to result in collapse, so this was rejected. In order to preserve the wall, the option of demolition and rebuild was also rejected, leaving only the option to build a new wall in front, with sufficient strength to resist the soil pressure. To provide such resistance the wall needed to be intact with the existing wall. If the wall were built from bricks or blocks this would have involved filling any cavity with a grout to ensure no cavities existed, but cast concrete would inherently provide support distributed over the entire wall face, so a cast concrete wall was adopted.

In order to retain as much of the original historic walls as possible it was decided to cast a new concrete support wall in front of the original stone wall and to leave the stone wall in place. It was necessary for the concrete wall to provide lateral overturning resistance and if this were to be achieved with a concrete base in a traditional “L” shaped wall, extensive excavation would have been necessary at the base of the wall, which in itself would have been destabilising. It was therefore proposed to erect a steel grillage frame which would be

braced back to the side walls rather like a series of buttresses to allow the concrete to be cast in panels, which were then themselves supported by the frame. This work only involved localised excavation next to the base of the wall to form footings for the steel posts.

We understand that this work was executed on site and are satisfied the existing stone wall and the barn is now stable for the future.



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