CROSS Safety Report

Design responsibility for timber frame houses and apartments

This month's report relates to a potential scope gap where certain structural elements in timber frame houses and apartments have not been reviewed, and no party has assumed responsibility.

Report

The safety concern addressed in this report relates to a residential project consisting of timber framed houses and apartments. The issue revolves around a potential scope gap where certain structural elements have not been reviewed, and no party has explicitly assumed responsibility.

In the project, the reporter served on the structural engineering team, primarily responsible for the substructure design of the timber frame houses and apartments. The superstructure design was undertaken by a specialised timber frame designer and manufacturer.

As the project progressed, the reporter's practice was requested to assume responsibility for certain superstructure elements that were beyond the capabilities of the timber frame designer. However, their involvement predominantly remained limited to the substructure design.

As part of the substructure design, the reporter's firm provided a specification for substructure masonry, including brick, block, and mortar strengths. Notably, their liability did not extend to cover superstructure masonry, outer leaf lintels, or overall building stability. While the timber frame manufacturer was responsible for the overall superstructure stability, it became evident that no party had explicitly assumed responsibility for the outer leaf brickwork.

Upon identifying this potential scope gap, the issue was raised with the client who passed the query onto the timber frame superstructure designer, who the client had assumed was responsible for the entire superstructure, including external leaf masonry. The feedback received confirmed that the outer leaf masonry was beyond their scope of work.

The absence of any party assuming design responsibility posed a potential risk of construction with incorrect masonry properties, unspecified

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↗Stock image of timber framed building under construction

Key learning outcomes

For clients and project managers:

→| Ensure that package scopes are defined in such detail that all interfaces and responsibilities are included

Expert Panel comments

When multiple parties are involved in a project, effective management (particularly in this case scope management) can become a source of contention.

It is crucial that principal designers and/or principal contractors identify all project elements early on and ensure that each is assigned to the appropriate party. This is essential for the safe execution of a project on time, and within budget.

Individual work packages often involve multiple interfaces, making their early identification and clear allocation of responsibilities critical to a project's success. As always, the devil is in the detail.

cavity ties and lintels, and inadequate consideration for the provision of movement joints.

The reporter believes this issue stemmed from poorly defined scope of works from both structural engineering parties. The lack of clarity left the client under the impression that all aspects of the structure were covered.

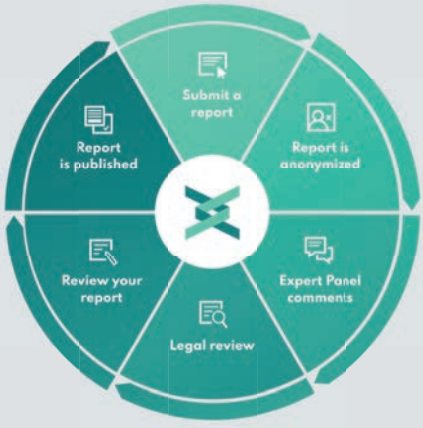
This incident highlights the importance of careful consideration when defining the scope of work within fee proposals. Clear exclusions should be stated to avoid ambiguity and ensure that each part of the structure is explicitly covered by the responsible consultant.

The full CROSS Safety Report, including links to guidance mentioned, is available on the CROSS website (report ID: 1307) at **www.cross-safety.org/uk/safety-information/cross-safety-report/design-responsibility-timber-frame-houses-and-1307**.

What is CROSS?

Collaborative Reporting for Safer Structures (CROSS) helps professionals to make structures safer by publishing safety information based on the reports it receives and information in the public domain.

CROSS operates internationally in the UK, US, and Australasia. All regions cover structural safety, while CROSS-UK also covers fire safety.



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CROSS
COLLABORATIVE REPORTING FOR SAFER STRUCTURES

How reporting to CROSS works

The secure and confidential safety reporting system allows professionals to share their experiences to help others.

Professionals can submit reports on safety issues related to buildings and other structures in the built environment. Reports typically relate to concerns, near misses or incidents. Find out more, including how to submit a safety report, at **https://bit.ly/cross-safety**. Your report will make a difference.