



Planning an
improvement to
your home?



Creating an open plan space

Creating an open plan living space is a long-established way that UK homeowners create larger, brighter living spaces at ground floor level. You should always consult a structural engineer before commencing any works.

There are serious hazards involved in terms of both structural and fire safety and the project could devalue your home if the alterations are not designed properly and approved by the appropriate authorities.

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Who do I talk to first?

You should ideally consult both an architect and a structural engineer on your design.

Building Regulations approval is required to remove a loadbearing wall, and planning approval may be required if the property has a special classification, such as being listed. In some circumstances, the Party Wall Act may be activated, depending on the nature of works and proximity of neighbouring properties.

What sort of work is involved in creating an open plan space?

This type of alteration often requires the removal of loadbearing walls at ground floor level. These walls support loads from above like other walls, or maybe the first floor joists, or both. A common misconception is that studwork walls are non loadbearing and masonry walls are loadbearing. It is quite common for the opposite to be true! These are not the only walls that matter: others can be needed to provide lateral stability.

Why is a structural engineer necessary?

If the wall is loadbearing, the structural engineer will be able to design a replacement structure. Also, while a builder may well be able to determine that a wall is not carrying vertical load, the subtleties of lateral stability require consideration by a structural engineer.

It is also important to understand how removing walls at ground floor could compromise the existing means of escape from the floor(s) above. It is usually possible to get a solution by using enhanced fire detection and suppression, but this area needs to be considered as part of a holistic design. Rules are different for houses and flats, although the principle is still that occupants can reach a safe fire-protected route to an exit.

What can I expect the structural engineer to provide and/or guarantee?

A suitably experienced engineer is likely to be able to provide drawings and calculations sufficient to meet all of the Building Regulations, not just structure. You should expect to receive construction information sufficient for a competent builder to price and carry out the alterations.



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