

Stick Build v Pre-Manufactured: Making the Right Choice



There are many considerations when you embark upon building your dream home, but one of the most important is deciding on the build system and making sure you have all the relevant information prior to making the decision.

You may have heard of, or possibly even have been directed towards, stick build. It is important to understand the clear differences between this method and the system you will be provided with by a structural timber frame manufacturer.

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What is Stick Build?

Stick build is a term that describes timber structures that are constructed on site, usually by the builder's or main contractor's joiners - using hand tools. Packs of timber and sheathing board are purchased from builders' merchants and delivered to site, where joiners construct the timber frame.

This may seem straightforward, but there are several fundamental differences between stick build and a modern offsite pre-manufactured solution. These include:

Quality

Joiners may not be members of the Structural Timber Association (STA) and will therefore not have a Quality Assurance Scheme in place to produce timber frame on site. This could result in no independent checks being made regarding the build quality or adherence to design drawings.

Specification

Materials used for stick build may not be the correct specification and therefore not fit for purpose. The strength, grade and moisture content of the timber and the class of sheathing are extremely important to the intended strength of the project.

Workmanship

Stick build creates the potential for poor workmanship on site, such as cutting and nailing tolerances, poor connection detailing and the use of incorrect materials. Poor workmanship can lead to poor airtightness meaning that the building does not perform as expected. In the worst cases, it can lead to structural failures as a consequence of incorrect components or connections.



Construction Design Management Regulations 2015 (CDM)

The CDM regulations apply to any construction work - whether it is a new kitchen, small extension, new house or large development. All will need a construction phase plan. The client has ultimate liability and is responsible for appointing competent people who have the skills, resources and time to undertake your project.

Accuracy

Panel fabrication drawings are unlikely to be provided to the site for stick build joiners to use when constructing the kit. Engineered drawings may be provided, but it is left to the joiner on site to decide how he puts the timber frame together.



Time & Costs

Stick build on site is labour intensive and time consuming. Although perhaps not apparent in initial costings, it is usually more expensive than panelised systems. Costs have to be factored in for extended scaffolding hire, waste removal of timber off cuts and delayed access for follow-on trades such as plumbers and electricians.

Insurance & Finance

Stick build projects will not be able to secure site insurance or structural warranties as easily or as affordably as an offsite timber frame supplier. Insurers view stick build as higher risk because panels are made on site rather than in a factory controlled environment. They also take into account lack of quality assurance on site and health and safety implications. In some instances, stick build may restrict the availability of lenders, who may not offer funding for this method of construction due to no manufacturer's warranty or structural warranty being available.

Structural Timber Association

Why Use a Structural Timber Association Member?

As the UK's leading organisation representing the structural timber sector, the STA has an objective to ensure our members meet with current legislation and regulatory requirements. There are a host of reasons why self builders should partner with one of our members.

The STA's mission is to enhance quality through research and guidance, underpinned by a members' quality standard assessment – the STA Assure Membership and Quality Standards Scheme. STA Assure is designed to benefit self builders by promoting the differing levels accreditations held by individual STA member companies. STA Assure has received formal recognition from six of the industry's leading structural warranty and building control bodies.

Built-in benefits

Offering impressive environmental credentials, along with cost and time efficiencies, factory-manufactured structural timber systems are the mainstay of the self build market. As time progresses, timber solutions are moving towards a more factory-built focus, with greater levels of prefabrication – so new homes can be delivered as part of a controlled process, rather than relying on site-based methods. The terms 'offsite manufacture' and 'offsite construction' are now entering the self build vernacular but what do these terms really mean?

Well, fundamentally they describe structural systems that are factory-manufactured to an advanced level to allow for onsite assembly (as opposed to construction) via controlled installation processes. Exact levels of prefabrication can vary, from factory-fitted insulation and pre-cut service channels through to panels that come complete with windows and doors already installed.

Indeed, intelligent, integrated construction systems such as closed panel timber frame, structural insulated panels (SIPs) and volumetric modular options are now driving innovation in the timber industry - offering more choice than ever before. With standards for efficiency constantly ramping up, the construction industry as a whole has faced a real challenge in creating homes that achieve the actual energy performance that is specified in the design brief. The accuracy and control involved in using timber-based offsite technology overcomes this issue.

Highly-manufactured options may not be suitable for every project but when combining the enhanced energy efficiency of these advanced systems, with shorter construction timescales, guaranteed build quality and vastly reduced ongoing running costs for the life of the building - it is clear that there are compelling reasons to specify these solutions for your project. When it comes to measuring value, taking all of these factors into the equation shows that structural timber systems are a cost-effective option.



6 Reasons to Choose a Pre-Manufactured Offsite Structural Timber Route

Here are the key advantages of opting for an offsite manufactured timber system:

- **Speed of construction**
- **Cost and programme certainty**
- **Quality assurance**
- **Enhanced energy performance**
- **Design flexibility**
- **Sustainability**
- **Proven performance**

Images courtesy of Scotframe

There is a wealth of information available to self-builders on the Structural Timber Association's website, from advice on structural timber systems to market reports and top building tips together with an online member's enquiry system.

For more information go to: www.structuraltimber.co.uk/self-build



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