

STRUCTURES

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B & K Structures



Structural Timber & Steelwork Engineered by Design

Engineered timber - an education in sustainability

Over the past three years B & K Structures has undertaken the design, manufacture and installation of a number of high profile projects in the education, commercial, residential and leisure sectors utilising structural engineered timber including glulam, structural insulated panels, X-LAM cross-laminated timber and cost-efficient hybrid structures.

X-LAM is formed in a similar way to glulam, by stacking and gluing layers of timber at right angles to one another. Compared to conventional timber X-LAM offers an entirely

new option when it comes to load transfer. Panels can be manufactured in a range of strength classes for non-structural or structural wall elements capable of spanning up to eight metres.

The product is manufactured off-site to the highest quality standards and enables rapid installation on-site and can include windows, doors and other architectural features.

Timber offers an ideal alternative to less sustainable materials such as concrete and steel, being renewable, recyclable, non-toxic, waste efficient and biodegradable.



Wellington Academy, Wiltshire - a natural solution

With stunning views overlooking Salisbury Plain, the new academy in Tidworth currently under construction by Kier Education and designed by architects BDP for Wiltshire County Council, creates strong connections with the setting and microclimate of its surrounding landscape.

Incorporating natural ventilation and maximising the use of sustainable-engineered glulam columns and an X-LAM structural cross-laminated roof to form the central hub space, the project will provide a 350-seat theatre together with business and enterprise, science, design and technology for 1,150 students ranging from ages 11 to 18 years.

In addition a separate boarding house incorporates exposed cross-laminated structural walls, cross-laminated structural floors and ceilings to the first and second floors together with exposed glulam structural feature columns supporting cantilevered steel to a glazed roof.

The speed of construction possible with factory-assembled units will result in a shorter build time than could be achieved through conventional construction. In addition the environmental and aesthetic credentials of engineered timber will ensure that Wellington Academy is an exemplar for sustainability and design in the education sector.

Wellington Academy,
Tidworth, Wiltshire
Client: **Wiltshire County**
Council

Architect: **BDP**
Main Contractor: **Kier Education**
Products: **Glulam, X-LAM (cross-laminated timber),**
Structural steel