

How Recycled Modular Buildings are Helping Schools to Meet the Green Agenda

Foremans Relocatable Building Systems

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- **The UK's largest recycled modular building specialist**
- Established in 1994
- Part of the Shepherd Group - one of Europe's largest independent construction companies
- 25,000sqm of high quality, pre-owned modular buildings in stock
- Sales, purchase and hire services
- Specialist in the education sector

The Benefits of Recycling and Refurbishing Modular Buildings

Faster Building Solutions: Programme Times Reduced by up to 70%



Less Disruption to Teaching



Recycled building modules are refurbished off site and **installed in just a few days**, reducing disruption to staff and pupils

A Cost-Effective Alternative to New Build



- Because the modules are pre-owned, the Foremans approach is **highly cost effective**
- Schools can benefit from **bigger buildings** and a **higher specification** compared to what is achievable with new build for the same budget

Flexible Education Solutions



- Multi-storey purpose-designed buildings, supplied in an infinite range of configurations
- Modules upgraded and reconfigured to client's specification using **NEW** M&E installations and internal fittings for a **quality education environment**

A Range of Procurement Methods



- Buildings can be hired or purchased
- A **buy back option** is available for all buildings supplied, giving schools and local authorities a disposal strategy to meet changing needs

Delivering More Sustainable Construction

One of the Most Sustainable Methods of Construction



- A highly sustainable alternative to new build
- Removes the need to dispose of quality buildings in landfill sites
- Extends the life of modular buildings

Reducing Energy Consumption and Carbon Emissions



- Generates **less than 10% of the carbon emissions**
 - Only **3% of the energy** is used compared to manufacturing an equivalent new building
 - Up to **67% less energy** is required to produce a **modular building** compared to an equivalent traditionally- built project
- (source: Arup)

Fewer Vehicle Movements to Site



- The approach generates fewer vehicle movements to site than traditional new build
- Less congestion, disruption and pollution

Improved Air Permeability



- Testing on pre-owned modular buildings is **not compulsory** in England
- In independent tests, Foremans buildings have performed up to **80% better than Building Regulations** requirements
- This **reduces energy consumption and carbon emissions**

Greener Design Options



- Biomass boilers
- Solar thermal heating
- Solar photovoltaics
- Rainwater harvesting
- Passive ventilation systems
- Ground and air source heat pumps

Dramatically Reducing Waste



Off-site construction generates up to **90% less waste** compared to site-based building methods

(source: WRAP)

Case Study: Alperton Community School

New Sixth Form Centre



- £1m building for London Borough of Brent to replaced dilapidated temporary block
- Designed by Sampson Associates
- Constructed from recycled and refurbished building modules
- **Handed over after only 7 weeks on site**

Purpose-designed Facilities



- Seven general classrooms
- Fully equipped IT suite
- Study and social areas
- Faculty offices

Environmental Features



- Use of recycled steel modules
- Pre-installed timber cladding from sustainable sources
- Natural ventilation
- Energy efficient lighting
- Brise soleil sunshading
- Water conservation devices

What the Project Demonstrates



- A new sixth form centre **delivered at half the cost of traditional build**
- On a **constrained school site**
- With a **'miniscule' carbon footprint**
- How the **addition of architectural elements** enhance the building
- Successful delivery to a **challenging programme**



Feedback from the Head Teacher

“Feedback about the new building from students, staff and governors has been **consistently excellent** and it has had a **very positive effect on morale**.

There was **no disruption to the school** and the scheme was completed with a high level of fitting out, **to time and on budget.**”

**Maggie Rafee, Head Teacher, Alperton
Community School**

Feedback from the Architect

“We are very pleased with this building. Initially we were sceptical about whether the pre-owned approach could deliver the quality we aspired to. In reality, you cannot tell the difference between this and new build.

We would definitely use the approach again.”

Colin Sampson, Principal Architect, Sampson Associates

Hints and Tips for Procuring a Pre-owned Modular Building

Maximise the Benefits



- Visit completed buildings, look at testimonials and **obtain references**
- Appoint a **dedicated project manager** in your organisation to facilitate fast decision making
- Does the supplier have a **track record in education** and understand the issues?
- What **warranties** are available?
- Is a **buy back option** available?

Assess Purchasing Criteria



- Assess the supplier's **criteria for purchasing**
- Does the supplier only use products from **ISO 9001 certified manufacturers?**
- Which manufacturers' buildings do they use?
- Are all these manufacturers still trading?
- Do they have a dedicated buying department and **continuity of stock?**

Understand the Building System



- Are **all** stocks **1995 Part L compliant** as a minimum?
- Be selective
- Ensure only **steel-framed buildings** are used – **longevity and durability**
- Injected panel technology offers **better weather performance**

Resources and Track Record



- Is the supplier **financially sound**?
- Do they have the **resources, stocks and capacity** to deliver?
- Do they have an **established supply chain** and reliable subcontractors?
- How many projects have been delivered **on time and on budget** over the past 3 years?

Committed to Customer Service?



- Look at **statistics for repeat business**. Over 50%?
- Are **customer satisfaction surveys** carried out for each project?
- What **after sales service** is offered?
- Will you have a **single point of contact** during the project and post completion?

Compare Suppliers that are Like for Like



- **What services can be provided?**
 - Sourcing
 - Design and space planning
 - Refurbishment
 - Delivery and installation
 - Testing and commissioning
- **What finishes are available for the building?**
 - Full internal refurbishment or
 - Redecoration only?

Health and Safety Issues



- Is the supplier fully compliant with health and safety regulations, both on and off-site
- Are all site staff and managers accredited to the CSCS scheme?

Further information



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