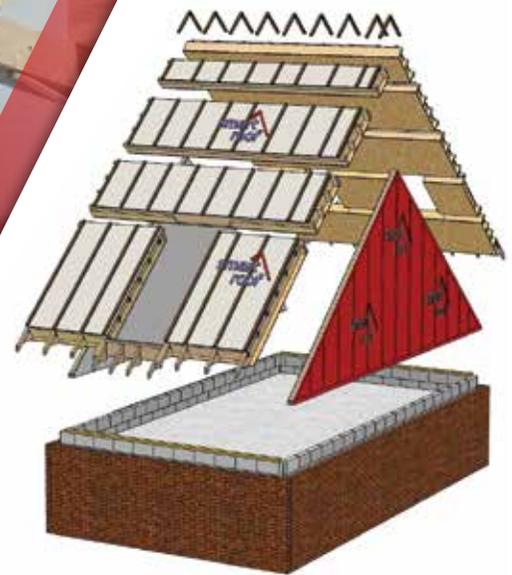


safer, faster, smarter!



rethinking roof construction

The smarter way to build



rethinking roof construction

The smarter way to build... a room in roof in just hours!

Produced off-site and installed in just hours, this patented NHBC approved insulated roof panel system eliminates purlins and ridge beam to create an internal space completely free from structural intrusions.

This 'room in roof' concept delivers major benefits in terms of site safety, thermal performance, consistent quality and speed of construction at **no extra cost**.

The smarter way... complete in just one day!

start

finish



**Smartroof®
Arrives On-site**
8.00am

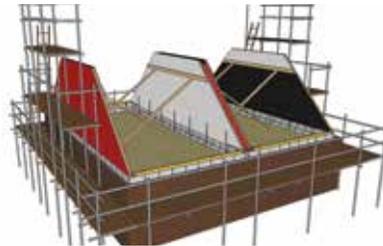
Great!
Smartroof
arrived on time!



Only one phone call was required to schedule the installation. The wall plates are in place and the crane is on-site ready for the delivery of the Smartroof® package in a single load. ✓



**Install Spandrel
Panels**



The spandrel gable panels are quickly positioned and strapped into place before the first Smartroof® insulated panels are lifted onto the gables. ✓



**Install Smartroof®
Panels**



The spandrel top hats are installed and the remainder of the panels can be fitted. The optional ceiling timbers were also installed. Not bad for a mornings work! ✓



**Roof Structure
is Complete**
4.00pm

Brilliant!
Exactly
on budget



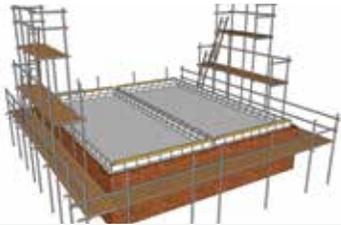
With the roof structure in place the Smartroof® can now be fitted with dormers or roof windows prior to tiling. Smartroof® has been fitted in a day exactly as promised without delays or cost overruns. ✓



The old way... complete in 12 days?

start

DAY 01 Gable and Party Wall Blockwork

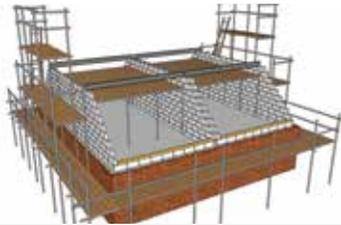


Material handling to allow bricklayers to start work on gable and party wall blockwork.

£ COSTS Tradesmen + labour and materials: Blocks / cavity insulation

! RISKS Site risks: Falling debris from blockcutter

DAY 02 Internal Scaffolding & Steels



Birdcage scaffolding goes up in preparation for the steels arriving. The steels arrived late and were lifted into place with the telelifter.

£ COSTS Tradesmen + labour, scaffold hire, downtime and materials: Steels

! RISKS Site risks: Manual handling of steels at limit of telelifter, gable blow overs

DAY 04 Upper Scaffolding & Blockwork



Upper tier scaffolding is built up to allow completion of the gable block work.

£ COSTS Tradesmen + labour, scaffold hire, and materials: Blocks

! RISKS Site risks: Falling block gables, manual handling of steels at limit of telelifter, gable blow overs

DAY 05 Awaiting Delivery of Trusses



Truss manufacturer misses delivery.

£ COSTS Lost time, tradesmen + labour, scaffold hire etc.

! RISKS Site risks: Falling block gables, gable blow overs

finish

DAY 07 Trusses Arrive...



Trusses delivered and lifted into place. Party wall blockwork completed and upper scaffolding removed.

£ COSTS tradesmen + labour, scaffold hire, downtime and materials: Trusses and joists

! RISKS Site risks: Working at height, gable blow overs

DAY 08 Trusses & Cut Rafter Timbers Installed



Installation of loose rafters, forming of dormer and roof window openings.

£ COSTS Tradesmen + labour, scaffold hire, Downtime and materials: Trusses / timber, Skip hire

! RISKS Site risks: Working at height in cut timbers

DAY 10 Membrane & Battens



Installation of roofing membrane and tiling battens.

£ COSTS Tradesmen + labour and materials: Membrane / timber

! RISKS Site risks: Working at height

DAY 12 Insulation & Vapour Barrier



Fitting of insulation materials and plasterboard to sloping roofs.

£ COSTS Tradesmen + labour and materials: Insulation

! RISKS Site risks: Working at height

The true 'room in roof'

Smartroof's 'room in roof' concept is extremely cost effective bringing an additional dimension to any house design and offers builders another attractive home option in their range.

Design freedom

Unlike a traditional truss roof or alternative panel systems, Smartroof® gives total design freedom including full vaulted ceilings and extended floor area in the eaves.

The system's inherent strength allows greater design flexibility in the use and placement of roof windows and dormers to create bright airy living spaces.

Designed for builders

Smartroof® has been designed and developed with builders for builders, to ensure that the system meets the exact needs of the current and future markets which are being shaped by both economic and regulatory forces.

Increased adoption of off-site production is now widely embraced as the way forward for an efficient house building industry.

**smart
roof**®



Hours not days!

- Certainty on completion times
- Supplied to predictable schedules
- Eliminates possible delays waiting for materials
- No downtime between multiple trades
- The quality of insulation within the interlocking panels is consistent and avoids problems with cold spots.



Safety Comparison

The safer option

Site safety must rank as the major priority for every builder.

Smartroof® eliminates the significant danger caused by falling block gables.

It also cuts risks dramatically by reducing labour to a single gang of carpenters, spending only a few hours working at heights.

Traditional builds require employed and sub-contracted labour across a range of trades.

Smartroof® Benefits



- ✓ No risk of falling gables
- ✓ Eliminates major safety risks
- ✓ No risks from working between trusses
- ✓ Reduced hours of working at height
- ✓ A cleaner safer site

Traditional Build Risks



- ✗ Falling blocks gables
- ✗ Erection of scaffold
- ✗ Manual handling injuries
- ✗ Additional working hours at height
- ✗ Use of power tools in confined spaces
- ✗ Working in confined space
- ✗ Additional vehicle movements
- ✗ Additional hoisting required
- ✗ High level steels
- ✗ Gable blow overs

Cost Comparison

100% guaranteed on budget!

Smartroof® is a highly cost effective solution with 100% budget certainty.

Our supply and install option guarantees a fixed price for the job. The alternative traditional build often has cost over-runs due to the use of multiple trades susceptible to delays caused by material supply or weather disruption.

In the traditional build method, material content of each roof may differ with uncontrollable factors such as wastage or theft.

Smartroof® Costs



£Y

GUARANTEED ON BUDGET

Traditional Build Costs

Labour	Materials
Brick trades	Blocks
Carpentry trades	Padstones
Certified drivers	Cement
Site management	Cavity insulation
Labourers	Steels
Insulation trades	Wall ties
Roofing trades	Trusses
Contract crane hire	Timber
	Roof insulation
	Membranes
	Lathes
	Plasterboard
	Birdcage scaffold hire
	Additional scaffold hire
	Additional materials
	Handling equipment
	Skip hire

£Y+?

BUDGET UNCERTAINTY

Smartroof®

Roof Quality

Consistent quality

Research has shown that manufacturing in a factory environment dramatically improves both the adherence to quality standards and the absolute quality of building components produced off-site in this way.

Smartroof® is a top quality roof, reflected directly by the thermal performance figures indicating the dimensional accuracy and quality of insulation within the interlocking panels.



Smartroof® is a proven patented product with thousands of installations already successfully completed in the UK.



By producing in a factory environment we can enforce our strict quality standards more effectively than with multi-trade teams on-site.



In compliance with Part L of the Building Regulations quality achieved in a controlled environment is far more consistent to that achieved when working on-site in all weather conditions.

Smartroof®

Roof Performance

Consistently a top performer

Smartroof® offers consistent and predictable thermal performance which can be computer modelled in advance to aid design enhancement and accurately assess an individual building's efficiency at the design stage.

The build quality at our gable, eaves and party head junction details helps to facilitate excellent Fabric Energy Efficiency ratings and contributes to performance targets in a Zero Carbon Home.

In compliance with Part L regs 2010 our system of interlocking panels mean that Smartroof® is inherently airtight.

**ZERO
CARBON**

Smartroof® is a high performance system which delivers consistent results when installed.

**U
Value**

Our computer modelling enables us to produce bespoke roofs enabling the builder to design top performing homes.

**ψ
PSI
Value**

Thermally modelled junction details combined with off-site manufacture reduce site defects.

SAP

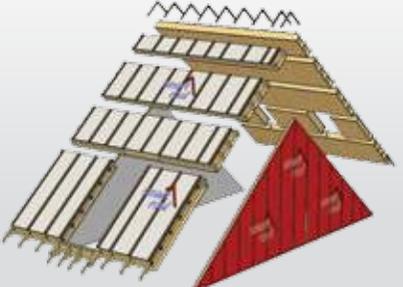
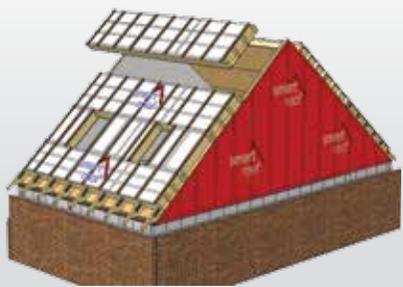
Smartroof® performance adds marketable value to a house without adding any additional cost to the total build.

A full service package

Smartroof® is offered as a full service package starting with a thermal modelling service at the house design stage. Our supply package includes the Smartroof® and other optional components including Keylite roof windows, IG Elements dormers and chimneys in styles appropriate to the house design. Finally we offer an optional full installation service.

smartroof.co.uk

Package Options

<p>Option 01 supply only</p>	<p>supply:  Installer Training Package ✓</p>		
<p>Option 02 supply & fix lite</p>	<p>supply:  Supply of: Crane Hire & Lifting Plan ✓</p>		
<p>Option 03 supply & fix complete package</p>	<p>supply:  Supply of: GRP Products, Roof Windows and Fascia & Soffit ✓ Supply of: Crane Hire & Lifting Plan ✓</p>		
	<p>fix:  Installation of: GRP Products, Roof Windows and Fascia & Soffit ✓  Registered Installer ✓</p>		



Find out more about the smarter way to build:



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The Complete Roof Package



IG Elements Dormer



IG Elements Chimneys



Keylite Roof Windows



PVC Fascia & Soffit



Promoting Sustainable Forest Management
www.pefc.co.uk

Part of **Keystone GROUP**

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