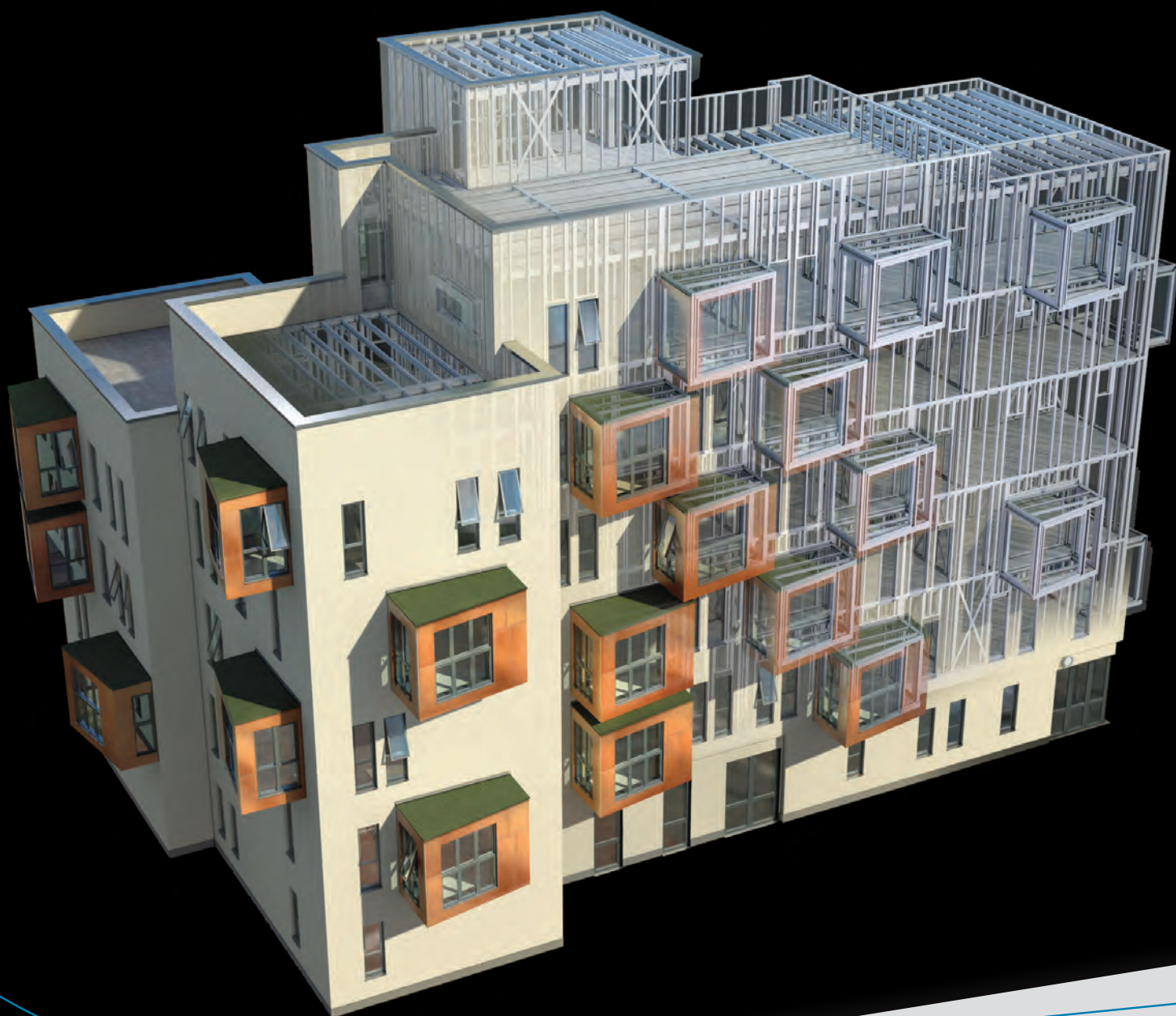


# METFRAME SPECIFICATION MANUAL



# INTRODUCING METFRAME

**Metframe is a prime example of a Metsec innovation.**

**Metframe is a complete, structural load-bearing building system which is ideal for a wide range of building types and applications. Through our approved accredited installers a qualified quotation will be provided for the supply and erection of Metframe.**

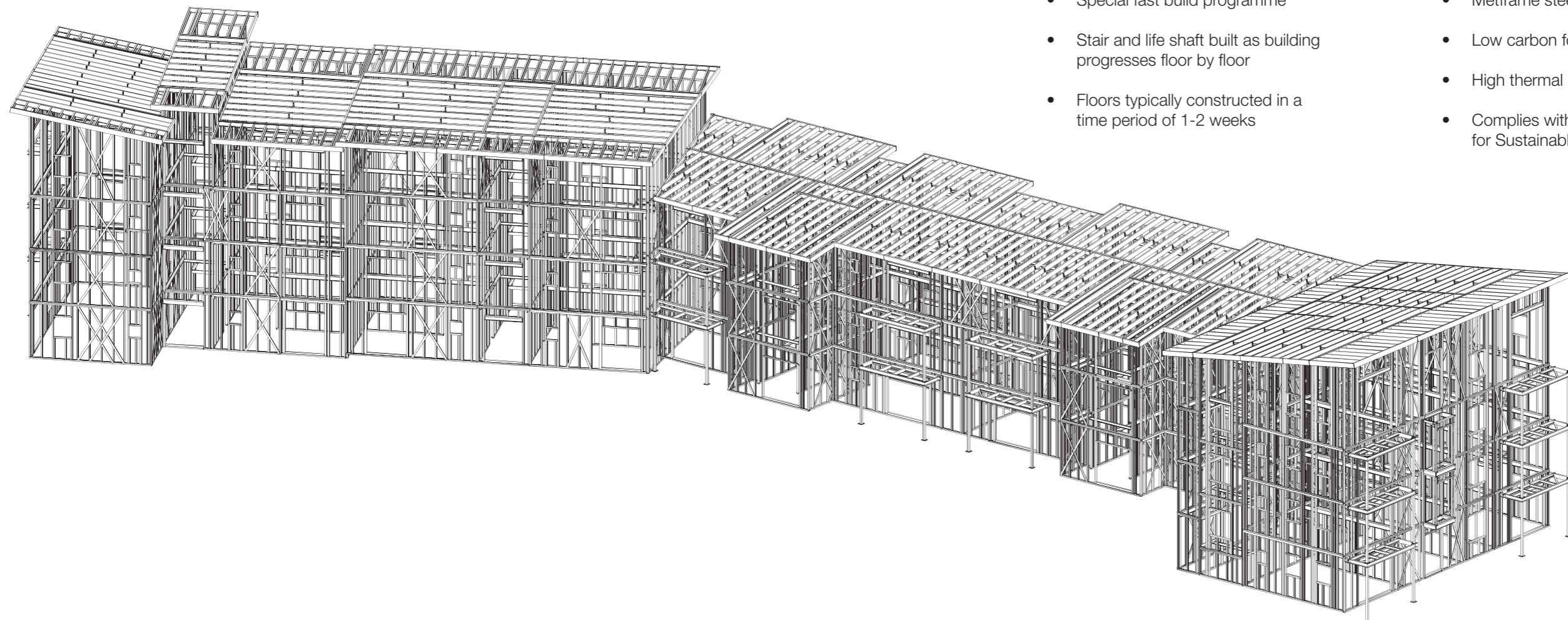
- / Lightweight, cold-rolled galvanised steel sections.
- / Sections are bolted together off-site to form structural internal and external wall panels.
- / Creates a complete stand-alone, load-bearing structure.
- / Works with a wide range of external finishes, including brickwork, insulated render, timber cladding, composite panels and ventilated rainscreens.
- / Each panel individually CE marked.
- / Panels quickly installed on-site with either concrete or cold-rolled steel joisted floors.
- / Able to be designed to bespoke customer requirements.
- / Suitable for a wide range of sector applications, including residential, hotels, student accommodation, social housing, care homes and education.



IN DEPTH

# KEY BENEFITS

The list of Metframe's key benefits is a long one.  
As you will see, our simple structural system offers  
clear commercial advantages to our customers.



## / QUALITY

- Traditional feel
- Precision steel design means no shrinkage and dimensional accuracy
- BIM modelled, CE marked and in possession of ETA status
- Concrete or steel joisted floor construction provides excellent acoustic and fire values
- Constructed by experienced, approved installers

## / VALUE

- Metframe brings a proven 15-year history
- Bathroom pods can be co-ordinated
- Metframe has a lifecycle of 200 years plus
- Extremely competitive system in comparison to other building solutions

## / SPEED

- Pre-fabricated off-site construction
- Special fast build programme
- Stair and life shaft built as building progresses floor by floor
- Floors typically constructed in a time period of 1-2 weeks

## / SUSTAINABILITY

- Zero waste for main structure
- Metframe steel is fully recyclable
- Low carbon footprint
- High thermal & acoustic performance
- Complies with the requirements of the Code for Sustainable Homes

IN DEPTH

# THE METHOD

With Metframe, the simple efficiency of the system is central to its true value. We consider it to be our responsibility to drive the practicalities of the process; so our customers can rely on the quality of the manufacturing and the management of the project from first to last.



## OFF-SITE MANUFACTURE

Metsec manufacture the sections in precise lengths and the panels are assembled off-site by approved Metframe installers.

External wall panels are pre-clad with either cement particle board or rigid insulation, which can include brick tie channels, to ensure a weather tight envelope is achieved quickly.



## DELIVERY TO SITE

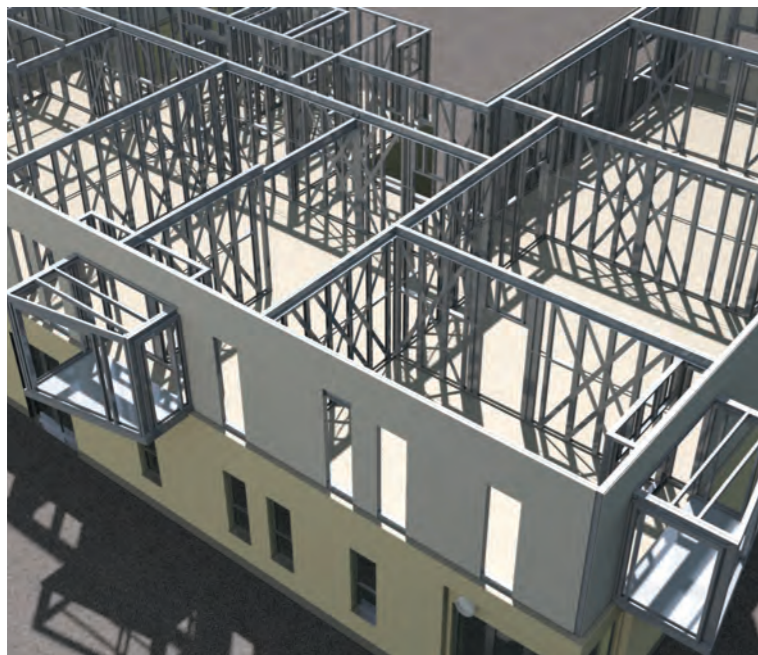
Panels are delivered to site in the required erection sequence. This saves time on-site as the first panel to be lifted is the first panel to be installed.



## PANELS CRANED INTO POSITION

Once the panels are delivered to site they are craned into position.

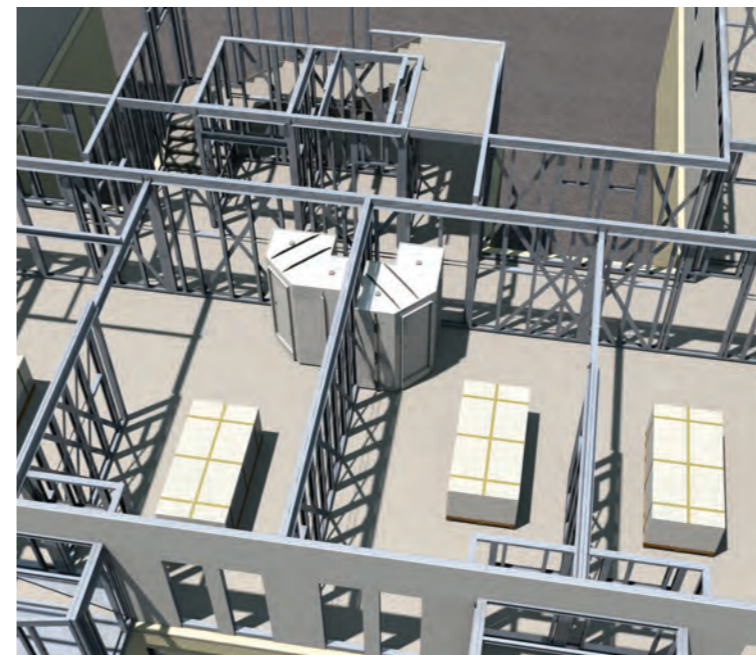
Panels are then fixed down and bolted together.



## **/ FURTHER PANELS INSTALLED**

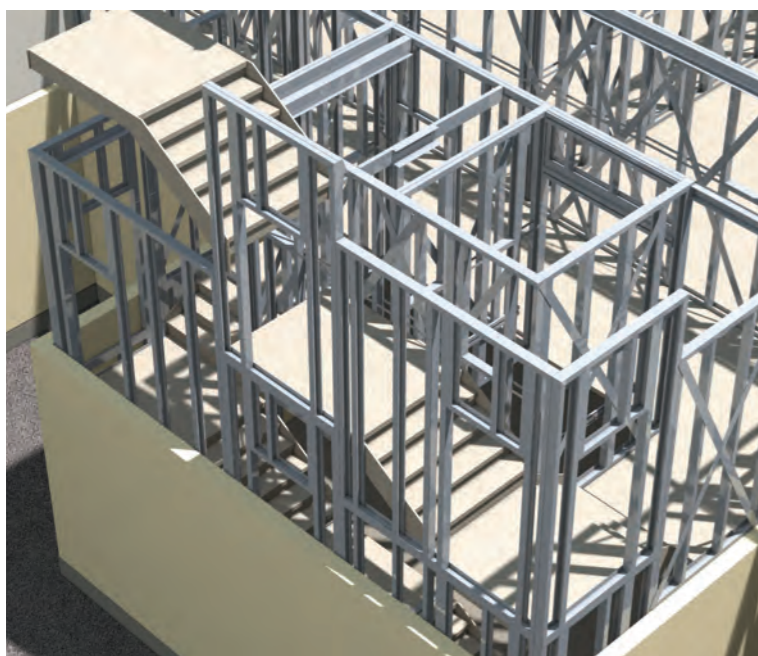
Further panels are quickly fixed into position according to the design, forming the structural walls of the building.

Wall panels incorporate cross bracing in order to provide overall stability to the structure, removing the need for hot rolled steel or concrete.



## **/ PLASTERBOARD AND BATHROOM PODS**

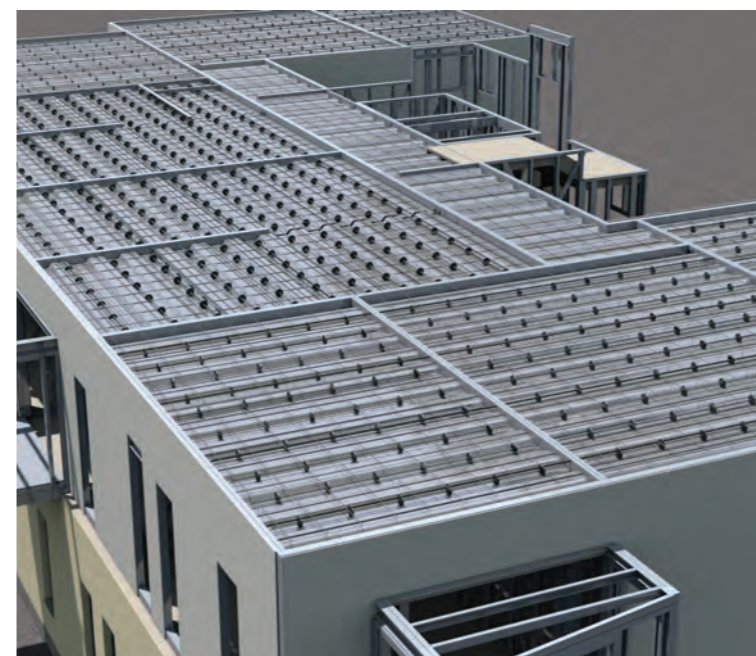
Plasterboard packs and bathroom pods are craned into position floor by floor as the building is erected. This means fast and efficient location of products ready for follow on trades, helping speed up the overall build programme.



## **/ STAIRS AND LIFT SHAFTS**

Stairs and lift shafts are an integral part of the Metframe system, they are installed as each floor is constructed.

These take away the need to rely on external scaffold for access to upper levels, providing convenience and added speed to the erection process.



## **/ METAL DECKING INSTALLED**

Composite metal decking is installed and fitted to the Z ledger incorporated in the wall panels.

Rebar and crack control mesh is installed to meet the building's specific fire and robustness requirements.

Lightweight steel joisted floors can be utilised as an alternative to concrete.



## / CONCRETE POURED

Concrete is pumped into place to form a floor offering high fire and acoustic performance.



## / SUBSEQUENT FLOORS ERECTED

This process is repeated and subsequent floors are typically constructed at a rate of 1-2 weeks.

Certain follow on trades, for example window installation, can start as soon as work progresses to new floors above.

## / THE FINISHED BUILDING



## / OUR INSTALLERS

The Metframe system is installed by experienced and approved sub-contractors who have extensive fabrication facilities where the panels are built off-site.

Our installers operate on a national basis and from completion of design, normally return quotations within 14 days.

In addition to the structure of a Metframe project, our installers are also able to offer dry lining, fire protection and external façade options.

For details of our approved installers please contact us.

IN DEPTH

# EXTERNAL FINISHES

Because of Metframe's load-bearing capability, it is able to function seamlessly with a number of external finishes. In turn each external finish can function with all key sector applications:

/ RESIDENTIAL DEVELOPMENTS

/ HOTELS

/ STUDENT ACCOMMODATION

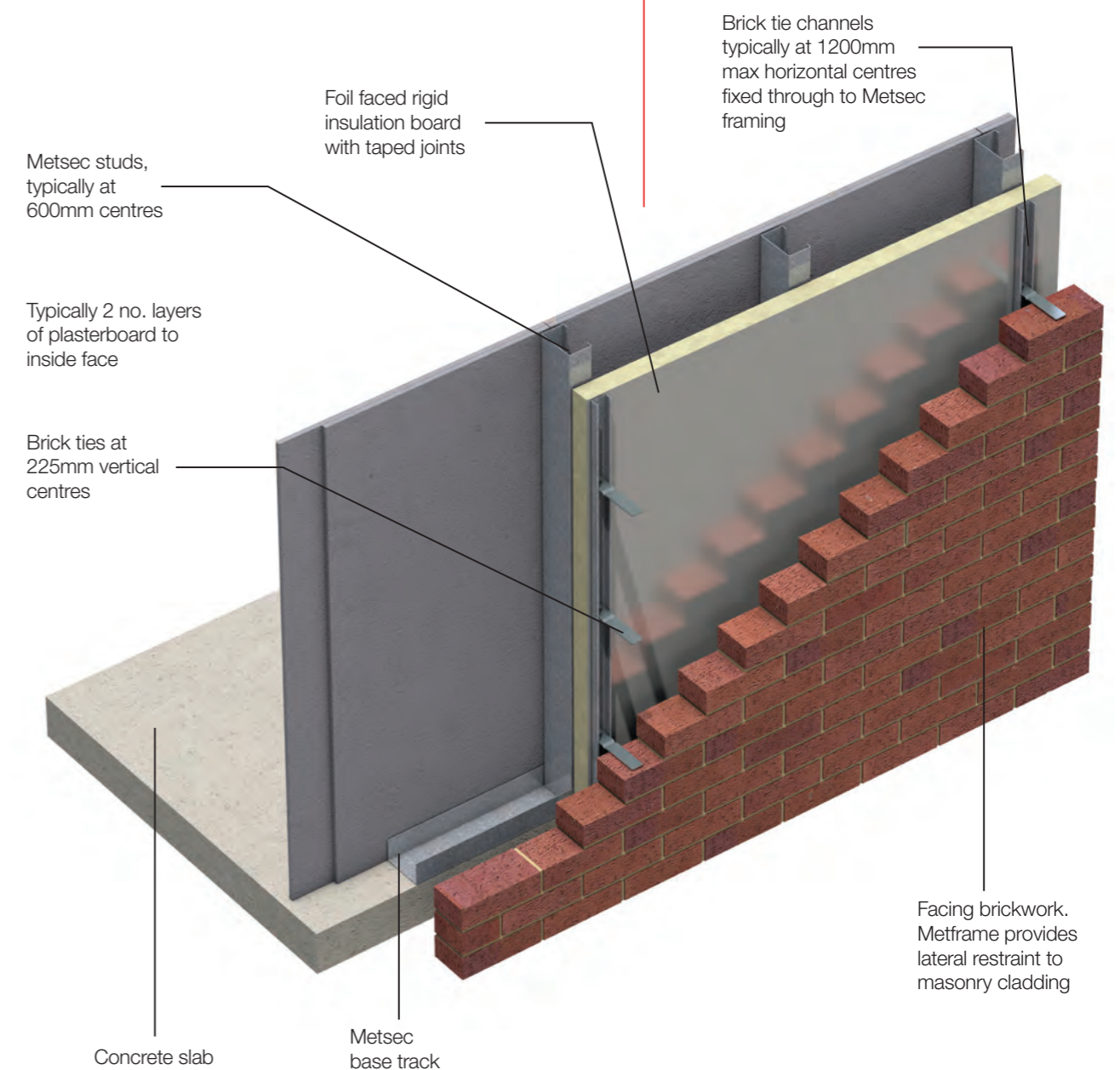
/ SOCIAL HOUSING

/ CARE HOMES

/ EDUCATION

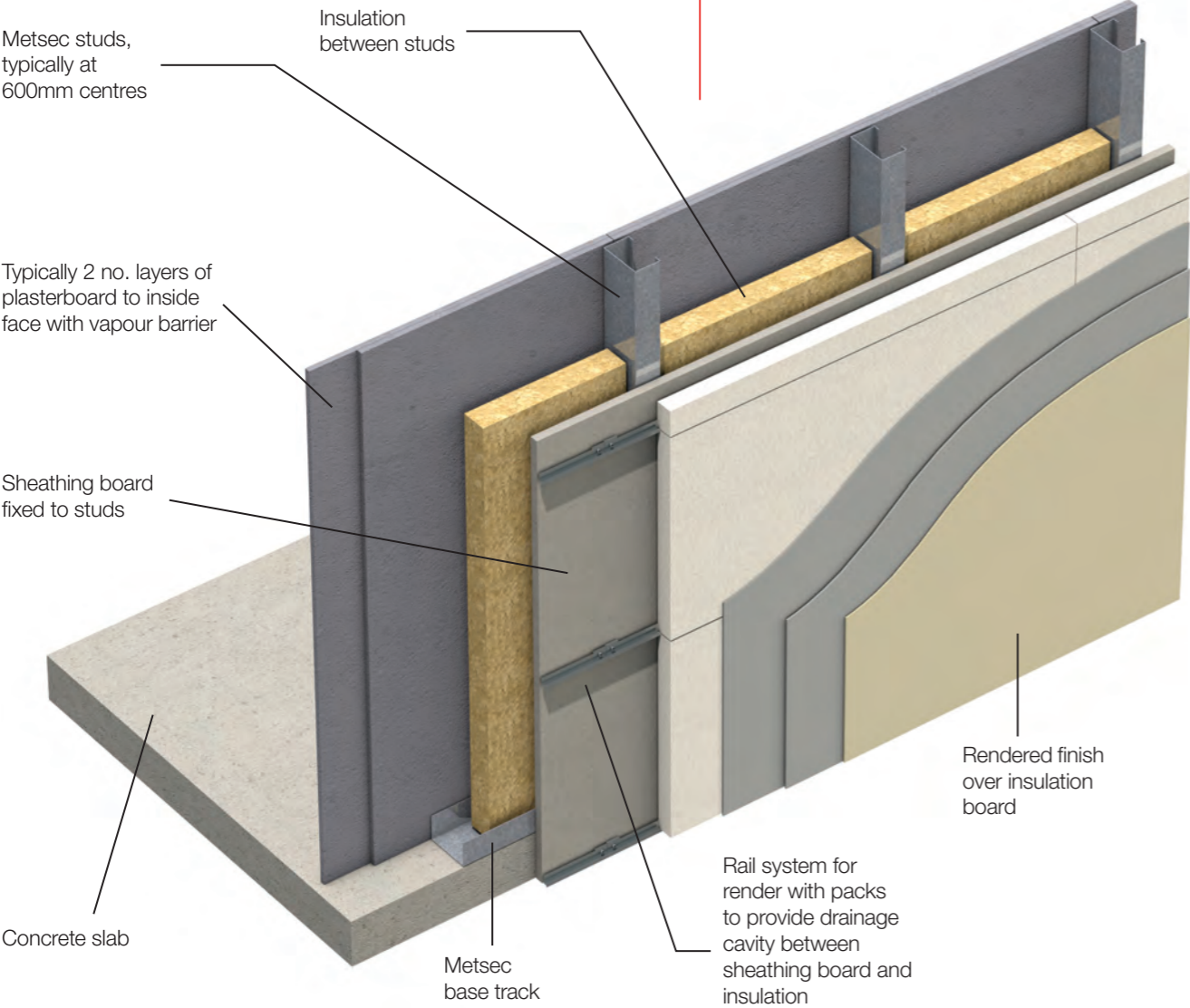
## / EXTERNAL WALL - BRICKWORK

Shown right: Student accommodation, Crispin Street, London



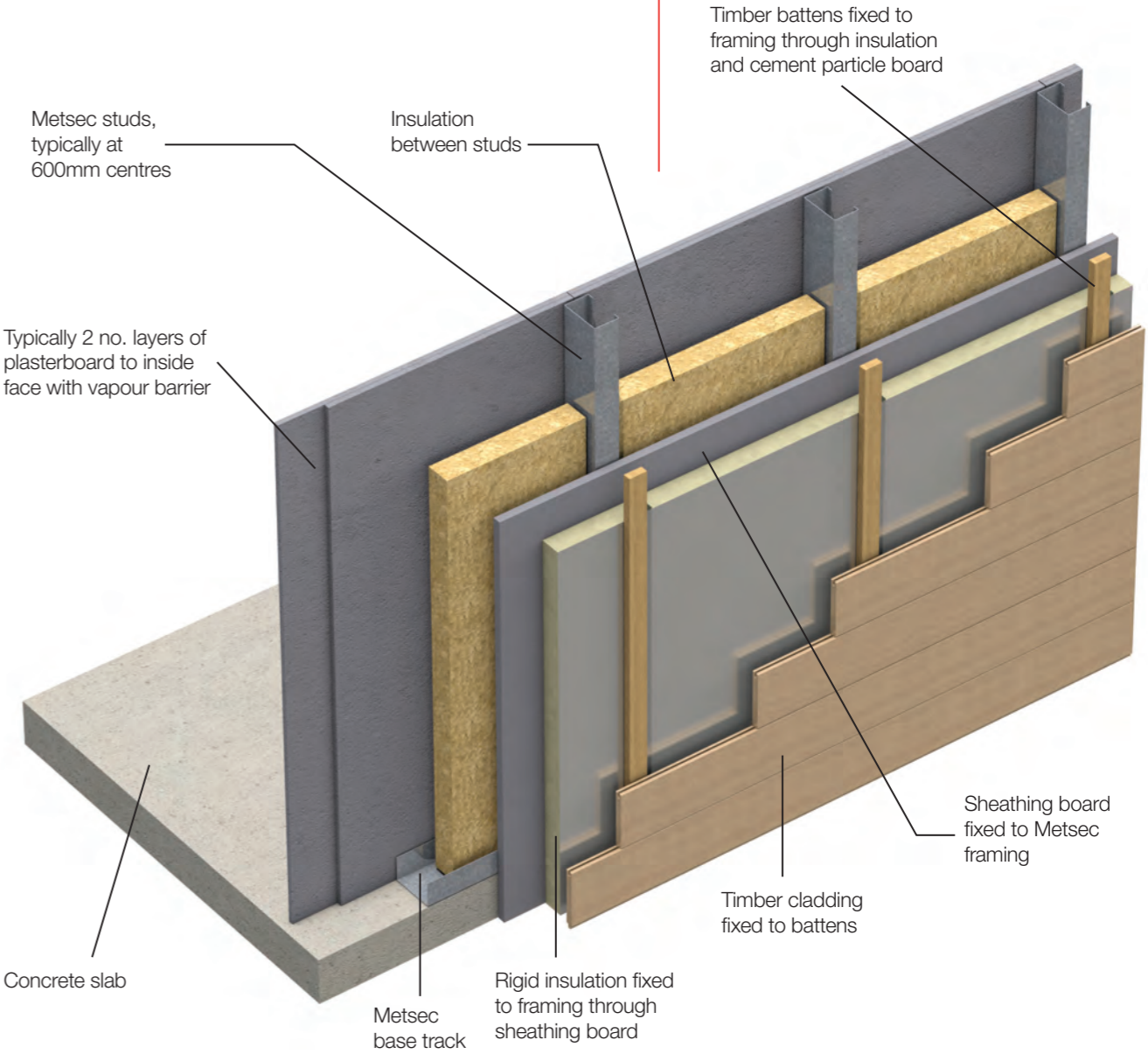
# EXTERNAL WALL - INSULATED RENDER

Shown right: Residential  
Apartments, Swansea Point



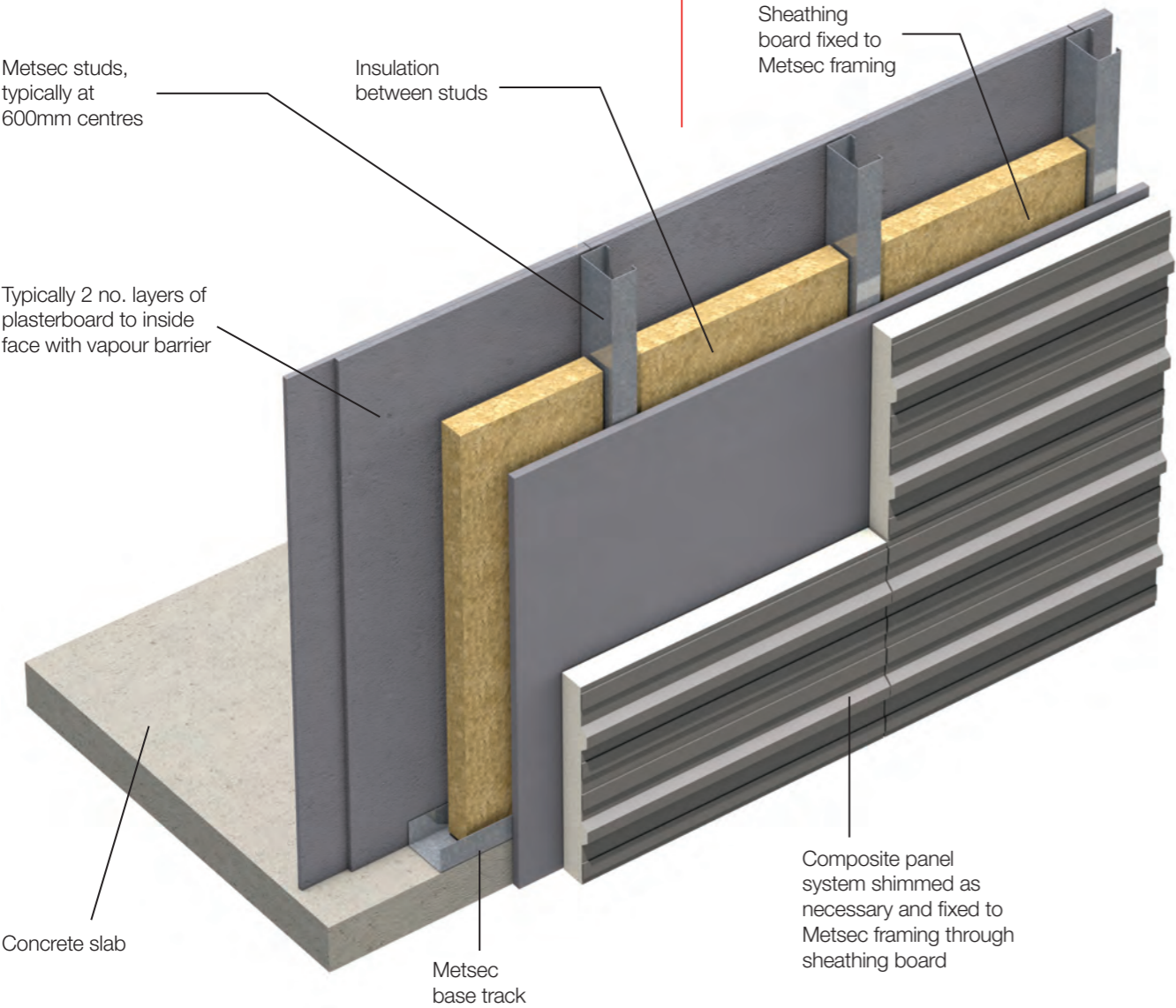
# EXTERNAL WALL - TIMBER CLADDING

Shown right: Sheltered  
Apartments, Petoria Road,  
Chertsey



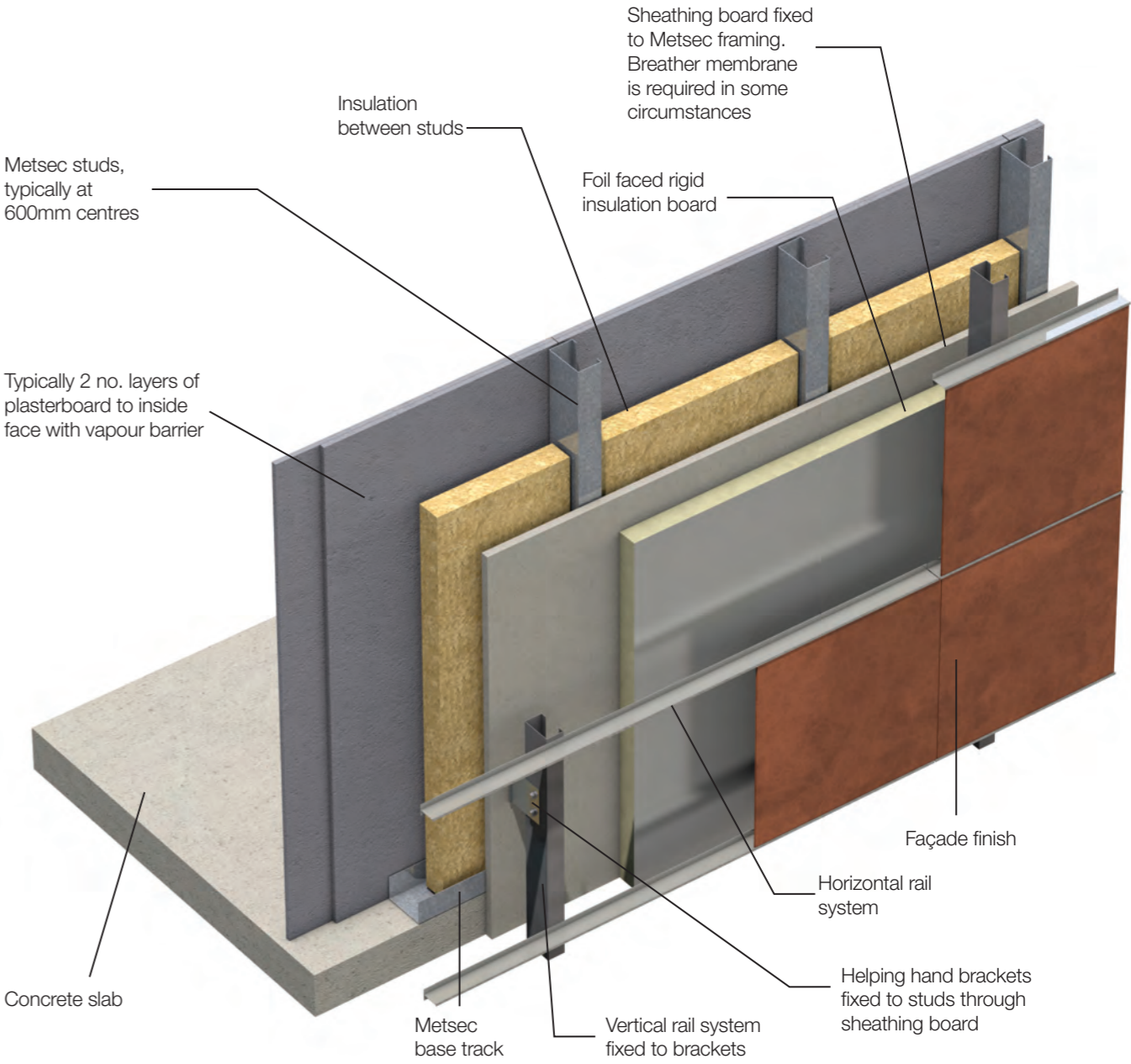
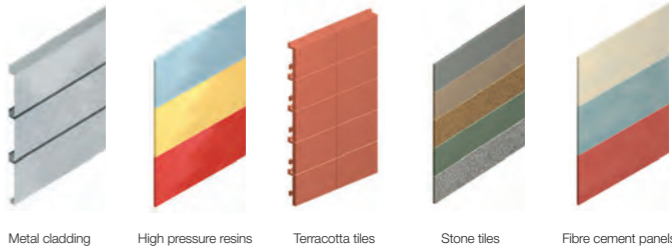
# EXTERNAL WALL - COMPOSITE PANELS

Shown right: Canterbury College



# EXTERNAL WALL - VENTILATED RAINSCREEN

Shown right: Different  
façade finishes



## NEC CASINO, BIRMINGHAM SECTOR: COMMERCIAL

# CASE STUDY

**Genting UK uses Metframe to deliver a high quality structural solution at Birmingham leisure and entertainment complex. Metsec has supported the construction of Genting UK's new Resorts World complex in Birmingham by supplying its pre-panelised steel framing system, Metframe.**

The £150m Resorts World development, which was built by main contractor Galliford Try, offers a unique 55,000m<sup>2</sup> leisure and entertainment complex inclusive of a hotel, spa, casino, 50 retail outlets, a wide range of restaurants and bars and a multi-screen IMAX cinema and is located on the NEC campus in Solihull.

Metframe was chosen as the structural solution to enable quick and efficient construction of the top three storeys of the complex. The three-storey structure forms a 178-room, four-star boutique hotel and spa facility with five-star suites on the top floor, which caters for delegates and visitors to the 900 events that are held at the National Exhibition Centre annually as well as leisure guests visiting the West Midlands region.

As Metframe is assembled off-site to form easy-to-erect panels, the full frame could be delivered to the contractor in the required erection sequence and simply bolted together on location. This means that it provided a zero-waste solution and a low-carbon alternative to traditional concrete and steel frames.

Steve Milward, Design Manager at Galliford Try explains the benefits of using Metframe for the Resorts World project: "Due to the lightweight nature of the joisted floor solution within the Metframe system, Metsec was able to deliver a frame that fitted within the strict criteria of the supporting structure below. Also, a huge benefit for the project was the speed of installation. By using Metframe, we could easily manage the build in phases to ensure structural soundness throughout the process."



Thomas Atkin of Atkin Trade Specialists, who installed the Metframe system, comments: "Building a multi-storey, steel structure on top of a pre-existing building is a complicated process and there were numerous design considerations to prepare for. However, in total, the construction of all 178 units took just 16 weeks, which is highly impressive for a build this big. Metsec worked closely with us to produce a 3D design of the hotel structure for Galliford Try, which enabled us to plan the works and stick to the contractor's construction programme. This, in turn, helped to reduce waste and emphasise the environmentally friendly aspects of the build - an ethos which we hold close to our own hearts."

Ben Gallimore, Technical Manager at Metframe added: "As a Black Country-based business we are incredibly proud that we were able to supply a cost-effective and highly manageable solution for incorporation into the project at the NEC. Metframe is an extremely competitive solution, which delivers a high quality building. Therefore, it was the perfect choice for the construction of the new four-star boutique hotel at the Resorts World complex."

## THE PRINTWORKS, EXETER SECTOR: STUDENT ACCOMMODATION

# CASE STUDY

**The complex design of a new 500-room student accommodation building in the centre of Exeter dictated a very tight footprint. Cold rolled steel specialist, Metsec, offered the ideal solution with its Metframe system. This enabled the timely delivery of a pre-fabricated system according to the strict schedule of the construction programme.**

Built on the site of an old print works and designed by Bristol based architects Stride Treglown, The Printworks have been dubbed 'the best student apartments in Exeter' by the University of Exeter. The challenging site is not only located on a busy arterial road but also next to a number of existing buildings, dictating a very specific footprint. The tightness of the site meant on-site fabrication was not an option for main contractor Morgan Sindall and approved Metframe installer, Atkin Trade Specialists.

They needed a framing solution that could not only be fabricated off-site, but that would also be compact enough in its design to maximise the available space of the three, four and five storey buildings. To make best use of these alternating levels Stride Treglown designed a courtyard to maximise the perimeter of the building, allowing as many bedrooms as possible to be included.

Metsec's Metframe system, a pre-panelised system used to provide the load bearing structure for low to medium rise buildings, has been widely used in the construction of buildings for various applications, including tall buildings – to date, the system has been used for buildings up to 11 storeys. The Metframe system allowed Atkin Trade Specialists to fabricate panels off-site, ready for installation as soon as the main contractor released each section of the substructure.

During construction at Western Way, composite concrete floors were incorporated with the Metframe system, helping to ease speed of construction within a tight programme. Concrete floors ensured a high level of acoustic and fire performance to meet both the legislative and application requirements of the project. Speed was also a driver in the inclusion of elements such as bathroom pods, installed directly onto the



concrete floors as the building progressed, helping to save time for following trades later in the programme.

The team at Morgan Sindall commented: "Metsec provided a good service on Western Way, they looked into detail options for us at tender stage, which assisted our sub-contractor package."

Atkin Trade Specialists said: "Metframe's slender structural wall and floor zones were important in optimising the space available for this project. One of the main benefits of the Metframe system is its rapid build, a key feature for this student accommodation project.

"The system was also ideal in realising the architectural design elements of the project. Upper storeys that overhang the storey below, with large corner windows and tall brickwork parapets are all features of the building design. The Metframe system enabled these features to be incorporated into the realisation of the building."

Stephen Ginger, Sales Director at Metsec added: "The Metframe system uses studs in the same way as load bearing steel frame applications, except these are bolted together off-site to form panels. The incorporation of heavier gauge studs to create bespoke designs allows structures to be constructed with multiple storeys. Ultimately though, it is the speed of construction that sets Metframe apart. Typically Metframe structures take under two weeks per floor to construct. We worked closely with Atkin Trade Specialists throughout the design process to ensure the Metframe system met all the project's requirements."

This collaboration is the unique benefit to specialist contractors when working with Metsec. The majority of building designs can be accommodated within the system, which is designed and modelled within BIM and offers a zero waste solution. With excellent acoustic performance and high thermal efficiency, Metframe provides main contractors and developers with a proven structural solution and peace of mind that the Metframe system will be on-site at the right time, according to the requirements of the build programme.

## MARINERS QUAY, NEWPORT SECTOR: RESIDENTIAL

# CASE STUDY

**The environmental credentials of Metsec's Metframe system played a key role in the Mariners Quay development in Newport, Wales achieving Code for Sustainable Homes Level 5.**

Newport's Mariners Quay is Wales' largest sustainable new housing development. In total about 1,500 new properties will be built in the area.

Phase 1 of the scheme, a £15.1m project, involved building 86 apartments, plus 15 mews and terraced houses along Newport's river front, all of which were allocated for affordable housing. This highly sustainable development achieved Code for Sustainable Homes (CfSH) Level 5 thanks to its innovative design and construction. The homes also incorporate a range of environmental features, including an energy centre with a wood-chip biomass boiler, along with water-efficient fittings and rainwater harvesting that helps to reduce water consumption.

Leadbitter (now Bouygues UK) constructed the apartment buildings for Seren Group using Metsec's lightweight steel building frame system, Metframe. Atkin Trade Specialists carried out the assembly and installation of the Metsec design.

"The Metframe system was ideal for Mariners Quay," explains Roy Burns, Managing Director of Metsec's Lightweight Structural Systems Division. "The pre-panelised system is fabricated off-site and simply bolted together on-site, offering a zero-waste and low carbon alternative to traditional concrete and steel frames for low and medium height structures. It also has a high thermal and acoustic performance – to achieve CfSH Level 5, the apartment buildings' acoustics had to be 8dB above Building Regulations.



"A big plus for the project was the speed of installation. Each storey typically takes less than two weeks to build and the system works with either steel joisted or concrete floors. Joisted floors result in a lighter structure but concrete floors, such as those used at Mariners Quay, generally provide a higher level of acoustic performance and fire protection."

Each apartment incorporates a sun space, oriented to take advantage of passive solar gains. The buildings were finished with a high performance insulated render system, bronzed copper cladding to the sun spaces and a combination of double and triple glazing.

Thomas Atkin from Atkin Trade Specialists added: "The issue of sustainability is a core social and corporate responsibility for us. Our work with Metsec is crucial to maintaining this ethos. We choose to use Metframe as it is substantially lighter than traditional alternatives and we work closely with Metsec engineers to produce a 3D design for each of our projects. This allows us to create a complete building solution with sustainability in mind and organise a seamless construction process.

"At Mariners Quay, we were able to significantly reduce the loads on the substructure by using Metframe to ensure a reduction in the overall carbon footprint of the project so that it met the CfSH level 5."

The use of Metframe ensured zero waste from the structural build but the project team also designed a waste management programme, which saw more than 94% of overall site waste diverted from landfill, with about 62% re-used on-site and 32% recycled.

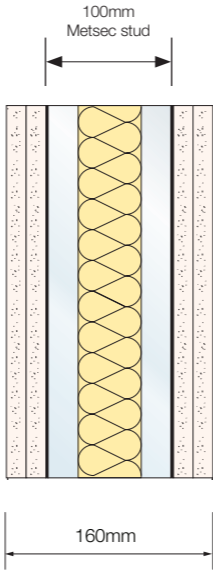
When Mariners Quay was completed, only 400 homes in England and Wales had achieved interim design stage certification at CfSH Level 5, so the scheme represented nearly 20% of all CfSH Level 5 and 6 properties built at the time.

Mariners Quay's environmental credentials have been recognised across the construction industry, with the scheme winning a string of accolades, including the Constructing Excellence in Wales award for low/zero carbon and the CIBSE South Wales Sustainable Project of the Year.

# PERFORMANCE DATA

## Internal Walls

- 15mm board (see below)
- 15mm board (see below)
- 100mm Metsec studs and insulation
- 15mm board (see below)
- 15mm board (see below)



### Acoustic Performance

Test No.	Wall Build-up	Rw + Ctr
BTC10543A	2x15mm Gyproc SoundBloc	50 - 7 = 43dB
	As above, with 50mm multi-purpose quilt	<b>52 - 7 = 45dB</b>
BTC10521A	2x15mm Gyproc FireLine	46 - 8 = 38dB
BTC10526A	As above, with 50mm multi-purpose quilt	48 - 8 = 40dB

### Notes:

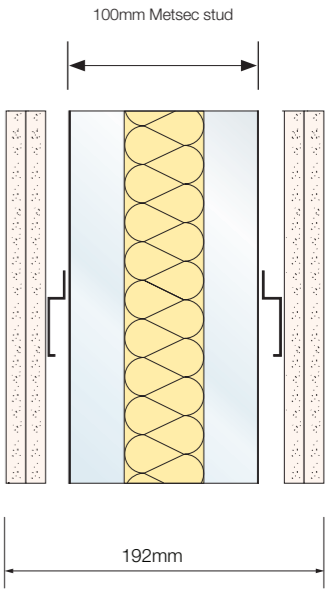
Values in *italics* are estimates based on the assumption that there is an additional 4dB performance when using SoundBloc over FireLine and a further 2dB from the introduction of 50mm multi-purpose quilt.

### Fire Resistance

Test No.	Wall Build-up	Fire Rating
BTC17827F	2x15mm Gyproc SoundBloc	60min
BTC17884F	2x15mm Gyproc FireLine or DuraLine	90min
BTC17798F	3x15mm Gyproc FireLine or DuraLine	120mm

## Internal Wall with Resilient Bars

- 15mm board (see below)
- 15mm board (see below)
- 16mm Gyproc Resilient Bar RB1
- 100mm Metsec studs and insulation
- 16mm Gyproc Resilient Bar RB1
- 15mm board (see below)
- 15mm board (see below)



### Acoustic Performance

Test No.	Wall Build-up	Rw + Ctr
	2x15mm Gyproc SoundBloc	<b>62 - 8 = 54dB</b>
BTC15628A	As above, with 50mm multi-purpose quilt	64 - 8 = 56dB
	2x15mm Gyproc FireLine	<b>59 - 7 = 52dB</b>
BTC10534A	As above, with 50mm multi-purpose quilt	61 - 7 = 54dB

### Notes:

Values in *italics* are estimates based on the assumption that there is an additional 2dB performance when using SoundBloc over FireLine and a further 2dB from the introduction of 50mm multi-purpose quilt.

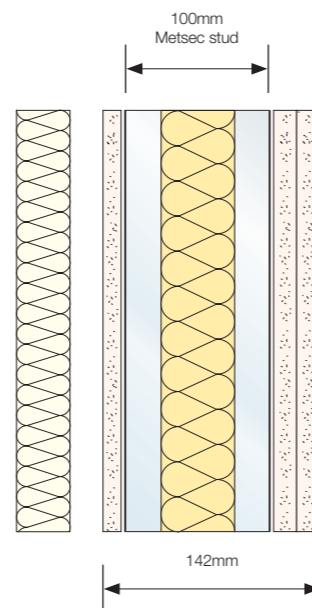
### Fire Resistance

Test No.	Wall Build-up	Fire Rating
BTC17827F	2x15mm Gyproc SoundBloc	60min
BTC17884F	2x15mm Gyproc FireLine	90min
BTC17798F	3x15mm Gyproc FireLine	120mm

# PERFORMANCE DATA

## External Walls with Insulated Render

- Sto Render System
- Cavity
- 12mm external grade sheathing board
- 100mm Metsec studs @ 600mm centres + 50mm multi-purpose slab
- 15mm board (see below)
- 15mm board (see below)



### Fire Resistance

Test No.	Wall Build-up	Fire Rating
BTC17827F	2x15mm Gyproc SoundBloc	60min
BTC17884F	2x15mm Gyproc FireLine	90min
BTC17798F	3x15mm Gyproc FireLine	120mm

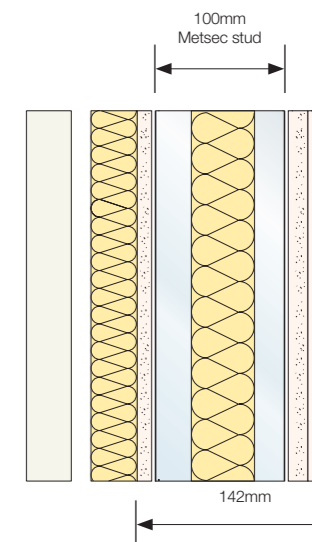
### Thermal Performance

Insulation	Performance Values
70mm Sto EPS Insulation 15Kg/m <sup>2</sup>	0.28 W/m <sup>2</sup> K
90mm Sto EPS Insulation 15Kg/m <sup>2</sup>	0.24 W/m <sup>2</sup> K
130mm Sto EPS Insulation 15Kg/m <sup>2</sup>	0.20 W/m <sup>2</sup> K

The above details are based on a 20mm cavity formed by Sto Support Rail and Sto calculations

## External Wall with Rainscreen

- Rainscreen system
- Cavity
- Rail system with brackets fixed to studs through sheathing board
- Insulation fixed around brackets - see below for specification
- 12mm external grade sheathing board (e.g. cement particle board)
- 100mm Metsec studs @ 600mm centres + 50mm multi-purpose slab
- 15mm boards as required (duplex board against studs)



### Fire Resistance

Test No.	Wall Build-up	Fire Rating
BTC17827F	2x15mm Gyproc SoundBloc	60min
BTC17884F	2x15mm Gyproc FireLine	90min
BTC17798F	3x15mm Gyproc FireLine	120mm

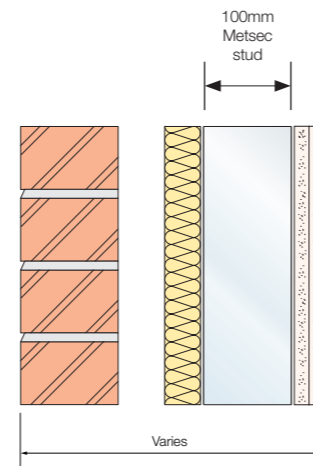
### Thermal Performance

Insulation	Performance Values
60mm Kingspan Kooltherm K15	0.30 W/m <sup>2</sup> K
80mm Kingspan Kooltherm K15	0.26 W/m <sup>2</sup> K
90mm Kingspan Kooltherm K15	0.24 W/m <sup>2</sup> K
130mm Kingspan Kooltherm K15	0.20 W/m <sup>2</sup> K

# PERFORMANCE DATA

## External Walls with Brickwork

- 103mm brickwork
- 50mm cavity
- Kingspan insulation (see below)
- 100mm Metsec studs @ 600mm centres
- 15mm boards as required



### Fire Resistance

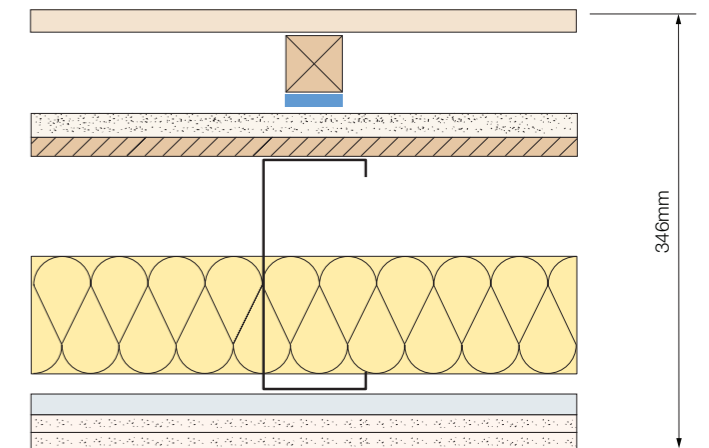
Test No.	Wall Build-up	Fire Rating
BTC17827F	2x15mm Gyproc SoundBloc	60min
BTC17884F	2x15mm Gyproc FireLine	90min
BTC17798F	3x15mm Gyproc FireLine	120min

### Thermal Performance

Insulation	Performance Values
40mm Thermawall TW55 (stainless steel fixings to brick-tie-channels)	0.29 W/m²K
50mm Thermawall TW55 (stainless steel fixings to brick-tie-channels)	0.26 W/m²K
75mm Thermawall TW55 (stainless steel fixings to brick-tie-channels)	0.20 W/m²K

## Joisted Floors

- 18mm V313 chipboard
- 53mm Danskin acoustic battens
- 19mm Gyproc plank
- 15mm ply
- 200mm Metsec joists @ 600mm centres
- 75mm multi-purpose slab between joists
- 16mm Gyproc Resilient Bar RB1
- 12.5mm FireLine boards as required



### Acoustic Performance

Test No.	Floor Build-up	Rw + Ctr
214610, L203-005	as above	59 - 7 = 52dB
Test No.	Floor Build-up	Ln,w (C1)
214610, L203-006	as above	51 (2) dB

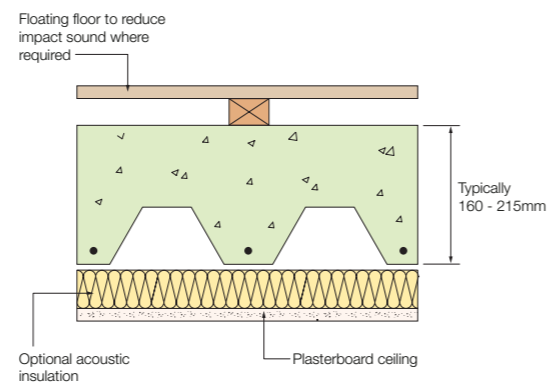
### Fire Resistance

Test No.	Floor Build-up	Fire Rating
BTC13819F	2 No 12.5mm FireLine	60 min
BRE241607	3 No 12.5mm FireLine	90 min

# PERFORMANCE DATA

## Concrete Floors

- 18mm V313 chipboard
- 53mm Danskin acoustic battens
- Min 160mm composite concrete slab with fire reinforcement
- Acoustic quilt (if required)
- MF ceiling



### Acoustic Performance

Test No.	Wall Build-up	Rw + Ctr
V16942AA	Concrete floor & MF ceiling only	63 - 9 = 54dB

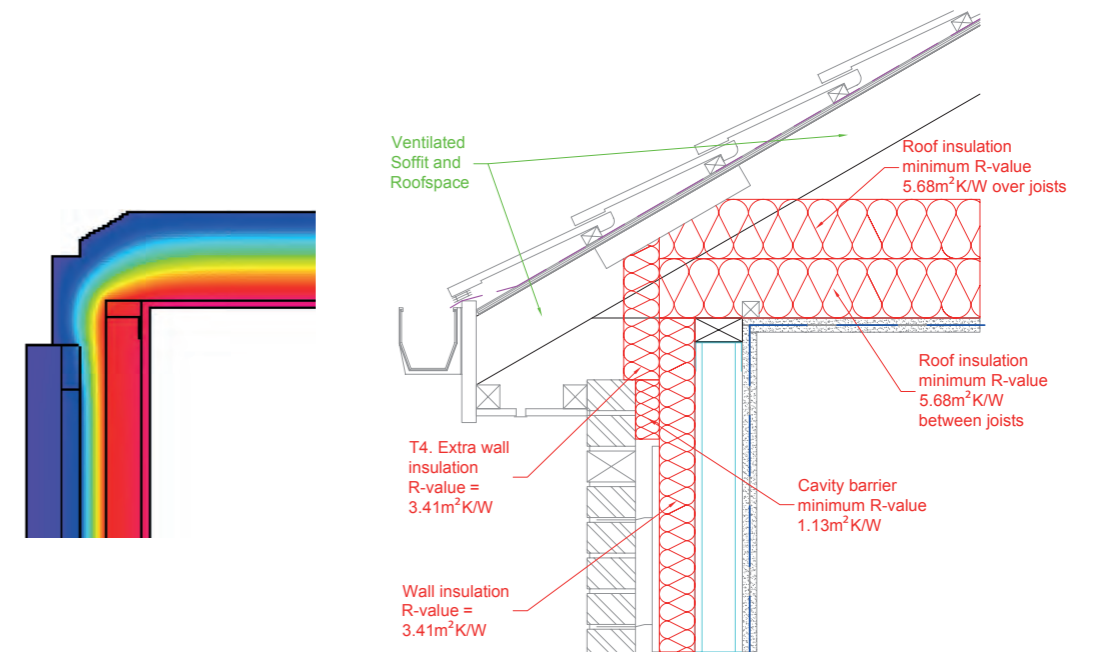
### Fire Rating

Up to 120min - Reinforcement provided by design

## Thermal Junction Details

Knowing the importance of providing both a thermally efficient building while remaining cost efficient Metsec have the ability to assist with developing project specific thermal junction details in-house. Using thermal modelling software, Psi values can be calculated for a variety of different junction details that can be fed back into the clients SAP calculations.

### Pitched timber roof eaves: ventilated insulation between and over roof joists

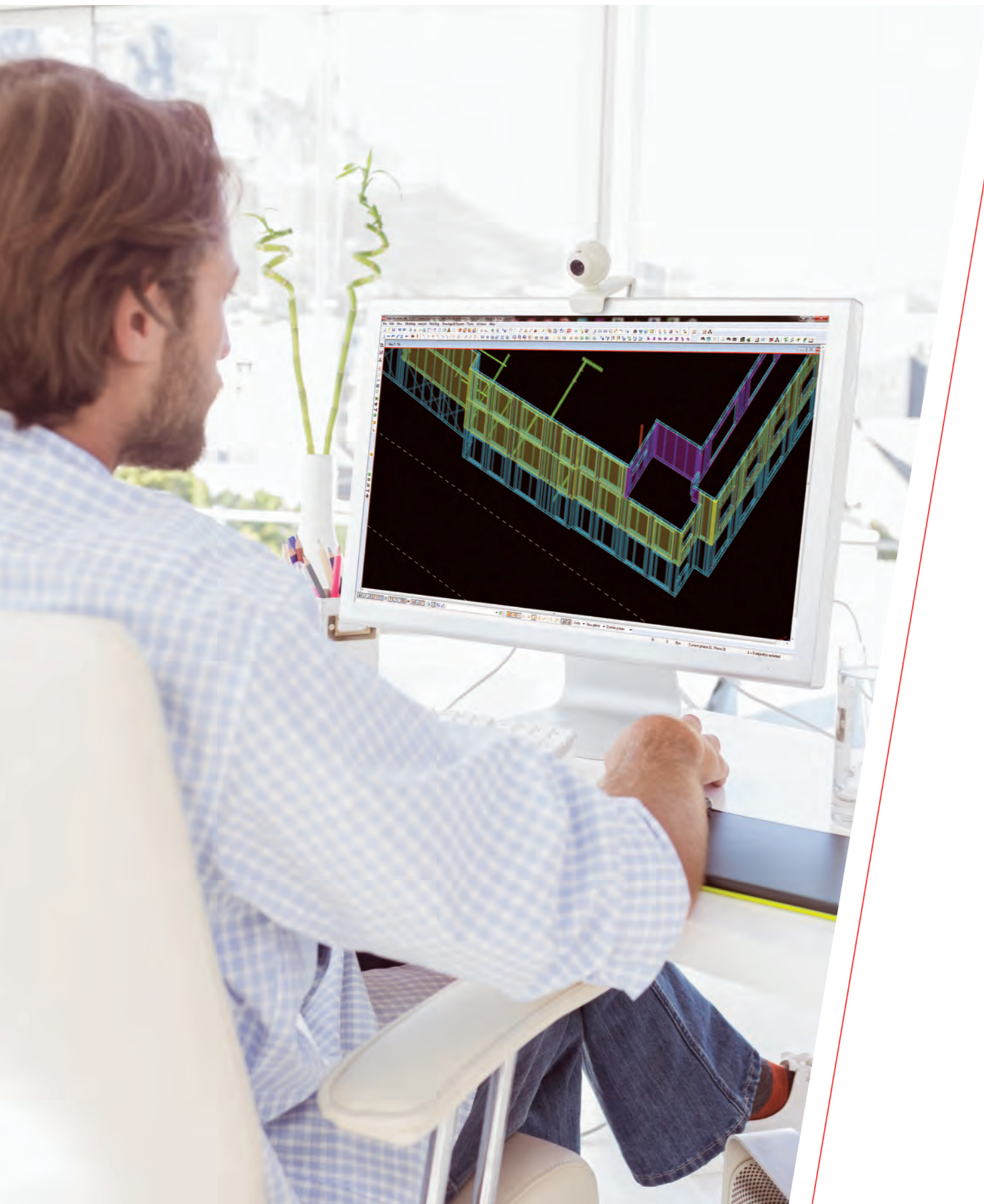


### Thermal Continuity Checklist

- T1. Ensure cavity barrier doesn't breach the insulation layer.
- T2. Ensure wall insulation is continued to top of wall plate.
- T3. Continue insulation in ceiling to outer edge of wall insulation.
- T4. Add additional insulation to face of wall above the cavity barrier to the same thickness as the general wall insulation.

### Air Tightness Checklist

- A1. Seal between the top of the plasterboard and the ceiling board.
- A2. Seal all penetrations through the air barrier using a flexible sealant.



**THE QUALITY YOU EXPECT**

# **THE CARE YOU NEED**

**At Metsec, we help our customers to maintain their competitive edge by designing the best steel construction solutions on the market. We deliver high quality, added value products, on time and in full, such as Metframe, our lightweight fast build structural steel system.**

With Metframe our customers receive our undivided attention from start to finish.

## **TECHNICAL EXCELLENCE**

We offer outstanding technical excellence and expertise; providing absolute value through absolute quality.

## **PROJECT MANAGEMENT**

Working closely with our approved installers, we are an integral part of the project from start to finish.

## **COMPLETE CARE**

We care passionately about every detail of what we do, from our customer service and design approach, to the precision manufacture and our sustainability credentials.

## **COMPLIANCE**

We ensure our products meet the latest legislation, such as Building Information Modelling (BIM) & CE marking. Metframe also carries a European Technical Assessment (ETA) and is NHBC accredited.

## OUR HERITAGE

# THIS IS OUR DNA

**At Metsec, we're proud of both our past and our present. It gives our customers the best of everything.**

Anchored in the traditional industry of the Black Country, Metsec has been at the forefront of UK manufacturing for over 80 years.

We are part of the voestalpine Group, the world's largest manufacturer of cold rolled steel sections.

With voestalpine delivering a revenue of over €11 billion in 2013/2014, and employing 48,100 staff across 50 countries and five continents, Metsec has the backing of a global engineering giant to complement our specific understanding of the UK Market.



## OUR ORGANISATION

# COMPANY STRUCTURE

### VOESTALPINE

A leading European manufacturer with its own steelmaking facilities and headquarters in Austria.

### VOESTALPINE - METAL FORMING DIVISION

A leading global provider of high-quality metal processing solutions, particularly special tubes and sections, special strip steel and complex components for the automotive industry.

### VOESTALPINE METSEC PLC

We are the UK's largest specialist cold roll-forming company, providing products for the construction and manufacturing industries.

### LIGHTWEIGHT STRUCTURAL SYSTEMS

Our range of lightweight steel construction systems and solutions.

### STEEL FRAMING:

#### METFRAME

Our pre-panelised framing system that is fabricated off-site, and installed on-site to provide superb efficiency and cost effectiveness.

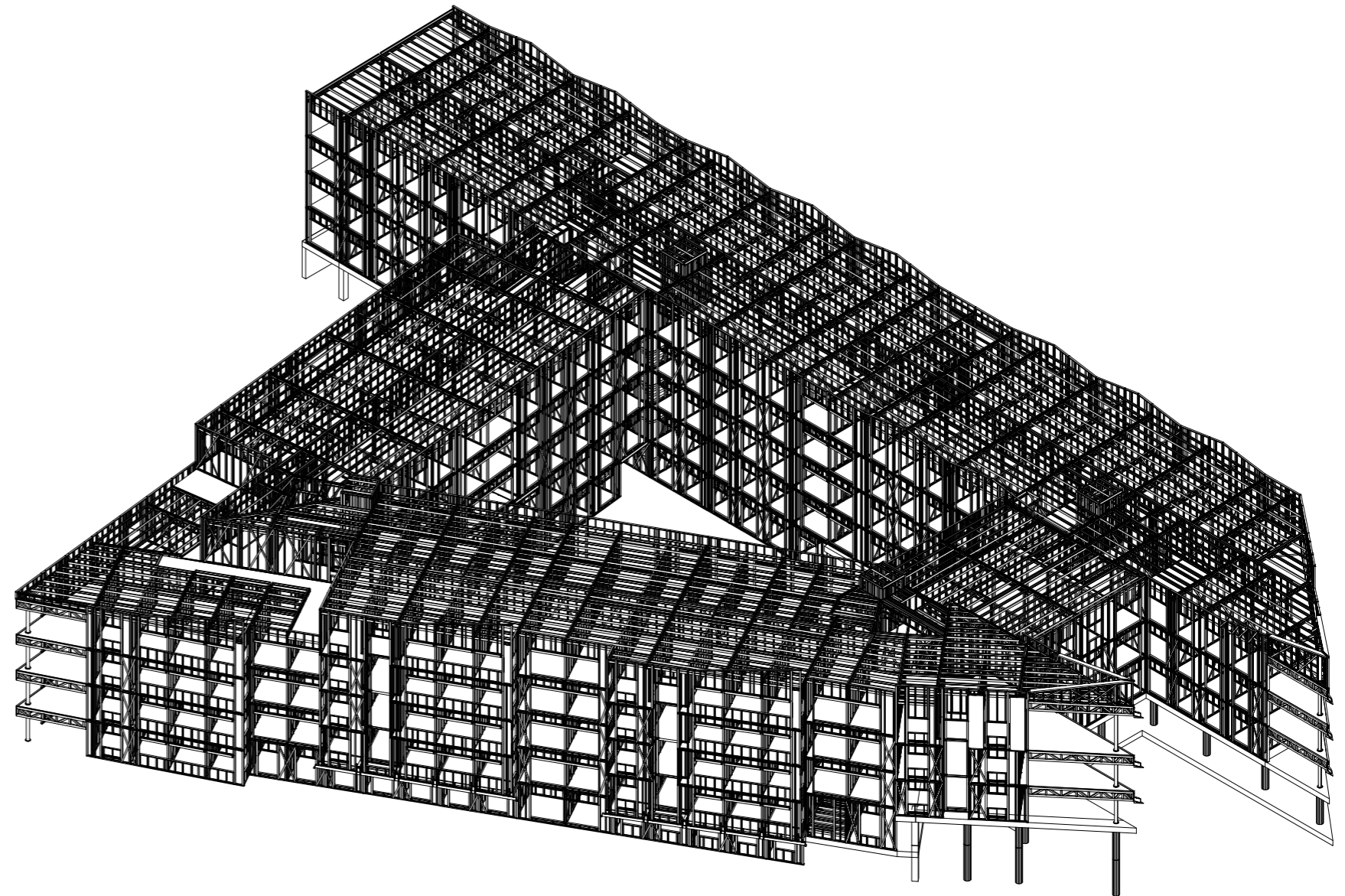
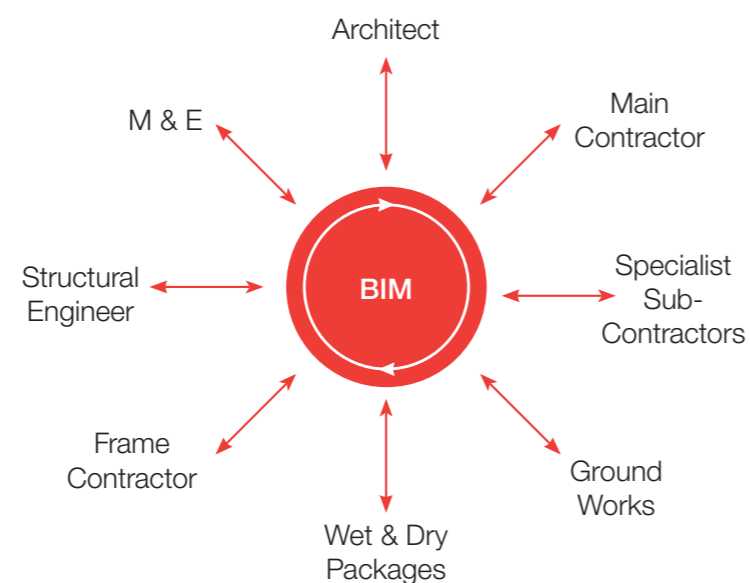
# METSEC & BIM

**Driven by the government construction strategy, the implementation of building information modelling (BIM) is now becoming a key part of the industry in integrating different trades who work on the same project.**

The idea is that BIM brings together all of the information about every component of a building, in one place. This makes the information easy to access for many different purposes, e.g. to integrate different parts of a design.

BIM isn't just about 3D modelling, but has the inclusion of data, which can be used to illustrate the entire building life-cycle, from cradle to cradle. Systems, products and sequences can be shown in relative scale to each other and, in turn, relative to the entire project, which can help prevent errors creeping in at the various stages of a project.

With building information modelling now sitting directly at the centre of all information flow every member of the project design team can now work collaboratively to ensure a smooth and efficient design and build process.



## BIM INFORMATION ROUTE

Metsec has been working with BIM for over 20 years and is Level 2 compliant. We have a number of design engineers all of which have the latest software to ensure we remain at the leading edge of BIM development.

Our long standing experience of working with BIM allows us to model buildings with our customers, enabling cost effective designs to be developed, and shared between all parties involved in the design.

ALL THE HALLMARKS OF QUALITY

# INDUSTRY STANDARDS

In line with industry standards, all Metsec's construction products and systems are CE marked under the Construction Products Regulations - with our processes certified up to EXC4, the highest available.

## / CE MARKING

We were the first in our field to have our products CE marked not only in manufacturing, but on the shop floor too. For example, Metframe is CE marked not only as a structural system, but also on each and every panel made and used.

Therefore, whatever you specify, we can deliver the required standards, leaving you in full security as to the quality of product and system you have purchased.



## / ETA STATUS

Metframe is the only steel framing solution on the market to possess European Technical Assessment (ETA) status; meaning that it has the specifications to meet all UK and European requirements.

TREADING CAREFULLY

# DELIVERING SUSTAINABLY

We understand sustainability as a global issue. To us, it is a responsibility, not a choice.

Our company policy is to reduce our environmental and resource impacts everywhere that we can - from electricity and gas to water and waste-to-landfill. We know that every efficiency counts.

We also work hard to increase the fundamental sustainability of our steel systems in practice. Ninety four percent of all global steel can be recycled, while the lightness of our steel systems reduces the load on the substructure. The combined effect is to help reduce the carbon footprint of our projects in comparison to an alternative method.

In recognition of our ongoing efforts, Metsec has received the following certifications:

## / BES 6001

The standard enables construction product manufacturers to ensure and then prove that their products have been made with constituent materials that have been responsibly sourced.

## / ISO 14001:2004

ISO 14001:2004 sets out the criteria for an environmental management system that can provide assurance to company management and employees as well as external stakeholders that environmental impact is being measured and improved.

## / BCSC STEEL CONSTRUCTION SUSTAINABILITY CHARTER

The objective of the Steel Construction Sustainability Charter is to develop steel as a sustainable form of construction in terms of economic viability, social progress and environmental responsibility.



**/ PURLINS**

**/ FRAMING**

**/ ENGINEERING**

**/ DRY LINING**

**/ CABLE MANAGEMENT**

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ONE STEP AHEAD.