

IN THE **FRAME**

EOS FACADES NEWSLETTER | ISSUE 4 NOVEMBER 2017

GAINING RECOGNITION ON A GLOBAL SCALE

It is not every day that you are invited to 'visita' South America and in September we headed off for sunnier climes on a 'knowledge transfer' trip of a lifetime.

EOS were invited to present the benefits of light gauge steel by evaluating the technical and economic benefits of using our Steel Frame Systems (SFS) and making cost, scheduling and performance comparisons with the traditional concrete builds that are so prevalent in the region. With 90% of the developments being built from concrete, both structural and infill panels and 35-45% of the concrete estimated to be non-structural - major construction companies are looking to adopt a technically more advanced approach.

As part of an Etex building performance knowledge transfer trip, EOS presented to Siena and SukSA in Chile – both traditional construction companies and Gafisa in Brazil - a construction company who is currently researching the benefits of SFS with a particular interest in adopting an offsite approach.

It was a great privilege and pleasure to share our knowledge and technical expertise with such an engaging audience – gaining insight into other cultures and working practises was beneficial to all. The excellent feedback we received following the trip was truly gratifying.

Steve Thompson - Managing Director

BUILDING A SUSTAINABLE FUTURE



Sustainability is at the core of our company's ethos, we believe it is imperative for every structure. The statistics cannot be ignored – buildings are responsible for nearly half of the UK's carbon emissions, half of its water consumption, around a third of its landfill waste and a quarter of all raw materials used in the economy.

EOS Facades is dedicated to promoting sustainability at every stage of the construction journey – our steel is highly recyclable, providing little onsite waste. We are developing increasingly sustainable solutions in line with internationally recognised standards. We are fully committed to helping to shape a more sustainable future.

We pride ourselves on delivering quality, environmentally conscious products that stand the test of time. Our approach to working towards a sustainable future is laid out in our latest Sustainability Policy. **To download go to: www.eos-facades.co.uk/information-centre/brochure-company-literature**

Light gauge steel is perfectly positioned to meet construction industry demands – it is future proof and future ready. As an advanced high performance offsite solution, steel is not susceptible to shrinkage, warping, cracking, rot infestation or moisture absorption.

Steel is a robust, rigid and dimensionally stable material that does not suffer from movement created by moisture related issues. Steel offers significant improvements in design capability and as an offsite manufactured solution, it is not adversely affected by severe weather - delivering both cost and programme certainty. The inherent benefits of steel construction are why this innovative material is gaining traction across all construction sectors, as clearly demonstrated in our recent project wins.

RESIDENTIAL

With a strong presence in the London residential market - our new and extension schemes include:

- Blackfriars Circus - Barratt Developments (pictured)
- Enderby Wharf, (Extra Phases) - Barratt Developments
- Royal Arsenal Woolwich Waterfront - Berkley Homes
- Britannia Music, Ilford - Durkan
- Caledonian Road - London Square
- Wembley MODA Living - Wates Living



SPECIALIST

The stunning new Tottenham Hotspur stadium design and wider scheme will deliver an unrivalled fan experience and significant community benefits. The construction of the 61,559 capacity stadium is going well, with the main structure now established. The £800million venue is due to open for the start of next season. We are proud to be making our contribution to this iconic project.

HEALTH

Following the completion of five major hospital projects, we are also heavily involved in delivering the Midland Metropolitan Hospital with Carillion, one of the largest healthcare projects in the country.

OFFSITE PARTNERSHIP

Continuing our strategic alliance with Osco Homes – a wholly owned subsidiary of Procure Plus that aims to deliver affordable houses constructed offsite at a factory based in HM Prison Hindley, Greater Manchester. Within three years Osco Homes aims to reach an output of 1,000 homes a year. The model is for the prisoners to be trained and then supported into full time employment upon release. Following our recent partnership in delivering Offsite Award shortlisted project 'The Lockies', EOS are now helping to deliver the St Hilda's project in Leeds.



EDUCATION

EOS Facades currently provide our innovative Steel Framing Systems to a large percentage of the Welsh PFI Schools - our portfolio includes:

- Tonyrefrail School
- Glenmora School
- Howardian School
- Hamadryade School
- Porth School
- Tonypandy School
- Monmouth
- Welsh Medium School (Withy Bush)
- Margam School



PERFECTING THE OFFSITE PROCESS

In July, we held our first round-table event - EOS Facades invited key industry figures to discuss the latest innovations and debate the future direction of the offsite sector.

Although there are more materials and system choices in the construction marketplace than ever before - light gauge steel frame (LGSF) has proved to be fundamental and is viewed as a trusted and adaptable building material. A common problem still exists however, in 'migrating' the offsite process to the construction site itself.

We can co-ordinate and design system solutions with ease in the factory. But the efficient offsite process needs to keep running when the system is handled and installed. It has to be an end-to-end continuation. Rather than a process of offsite methodology to the factory gate before arriving onsite and being subjected to a traditional approach.

A way to combat this post-factory handling and installation, as members of the round-table panel agreed - is via engagement between the project team and a collaborative approach between all those involved at an earlier stage. Manufacturers have a lot of knowledge and need to get involved at the start of the project not halfway through - or even sometimes at the end of it! Certainly 'education' is required at all levels of the process - not just the commonly understood long-term benefits but throughout the supply chain and construction cycle.

No talk of the construction industry is complete without mention of skills - or lack of them. The manufacturing environment is far different to that of construction. The dearth of skills in certain parts of the traditional construction sector is a problem easier to resolve for the

offsite sector. That is, within a controlled factory environment where there is closer supervision of the work and problems can be solved quickly. We can also multi-skill and multi-task our operatives.

We are operating in exciting times. The construction industry was always compared unfavourably with the automotive and aeronautical industries - this had to change. There has never been a better time to capitalise on the raft of benefits that factory-based solutions deliver - modernisation is more than an option now - it should be seen as an obligation.



Our thanks to all participants for their time and contributions to the discussion including:

Facilitator - **Darren Richards**, Cogent; **Ed Newman-Sanders**, Technical Director, Atkins; **Oliver Novakovic**, Technical & Innovation Director, Barratt Developments; **Ken Davie**, Head of Offsite Development, Carillion Building; **James Pickard**, Director, Cartwright Pickard; **Adrian Storey**, General Manager, Horbury Group; **Rory Bergin**, Partner Sustainable Futures, HTA Design LLP; **Ian Heptonstall**, Director, Offsite Management School; **Andrew Ogorzalek**, Partner, PCKO/AHR; **Andrew Way**, Associate Director, SCI; **Neil Ash**, Managing Director, Siniat; **Dalbir Jangra**, Head of Marketing, LHC.

To read the full article go to: https://issuu.com/radarcommunications/docs/offsite_mag_issue_7_digital_issue/40

EOS Facades Announce Trade Agreement

We have recently announced that EOS Facades has formed an official Trade Agreement with main contractor Morgan Sindall, for the design and supply of Steel Framing Systems (SFS). The Trade Agreement, which will simplify and streamline the procurement process for Morgan Sindall's delivery partners - offers a wide range of new and supportive benefits including key account management, up-front design services, all-inclusive lump sum packages together with product training and CPD's. EOS have been driving light gauge steel for offsite solutions, providing the industry with quality products through precision manufacturing, whilst delivering accurate results on time and on budget. As specialists in the offsite manufacture of steel frame systems, EOS Facades product portfolio offers broad parameters to explore innovative solutions and optimise value engineering.

For more information of the product ranges and services that fall within this agreement go to: <http://www.eos-facades.co.uk/information-centre/brochure-company-literature/>



We operate across all sectors, delivering quality steel systems to the highest standard, on time, and within budget. Here is a snapshot of some of our latest work...

BRODICK FERRY TERMINAL, ISLE OF ARRAN

EOS were commissioned to design and supply the Steel Framing System (SFS) to form the inner leaves of the external walls at the New Brodick Ferry Terminal on the Isle of Arran. The £18m terminal enhances travel between the mainland and will include a new pier and parking in addition to the transport interchange. This facilitates the arrival of a new class of 100m long vessels to be introduced by Spring 2018.



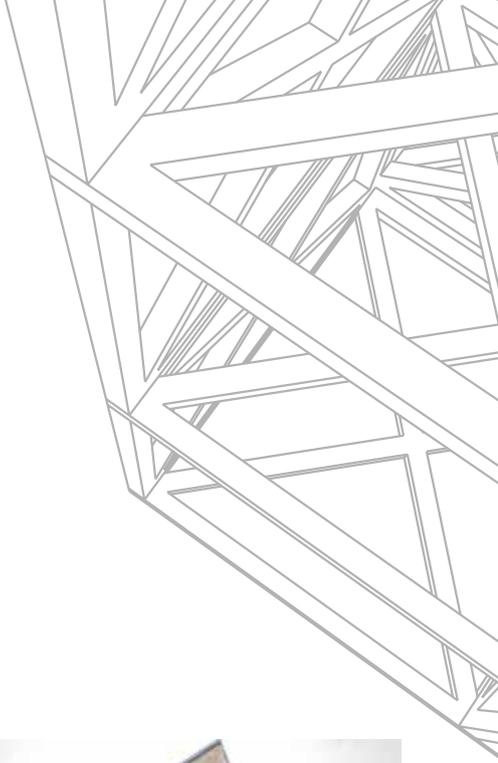
Image courtesy of Norr Architects

The scheme uses both linear and curved faceted elevations to represent the architectural vision in all locations and predominantly consists of SFS external walling of a hot rolled frame superstructure. A range of non-standard items were all encompassed in the EOS scope of design and supply including: parapet and twin leaf framing; curved and faceted walls; tall studs to create piers at the fins of each end of the building (over sailing SFS) which provided a robust finishing detail to the canopy area, and use of additional bespoke and off-the-shelf bracketry support elements.

EOS provided lightweight cold formed C-section studs, designed and supplied cut-to-length with virtually no offcuts to be made on site. The lump sum approach offered by EOS provided all parties with cost certainty. The use of BIM level 2 modelling and design significantly reduced lead times, and manufacture and delivery slots were known and pre-programmed weeks in advance.

EOS provided dedicated on-site technical assistance as well as quality assurance checks throughout the installation. The product benefits from internal ISO9001 quality checks. EOS were able to meet the tight deadline and the predominantly offsite solution overcame the difficult site access. The robust solution is designed to meet the increased wind loads of the island - creates a strikingly modern terminal with immense capabilities, delivered through efficient offsite construction methods.





THE NORTH WEST CAMBRIDGE DEVELOPMENT

The North West Cambridge Development is the largest single capital project that the University of Cambridge has undertaken in its 800-year history. To address the predicted growth of around 5,000 students and 3,000 staff over the next 25 years and provide affordable accommodation - the masterplan includes 3,000 homes, 2,000 post-graduate student spaces, 100,000 m² of research space, a local centre and community facilities.

EOS Facades were appointed to provide the company's specialist offsite manufactured SFS Facade System which was installed by SCL for phases one, two and three of this prestigious development - a contract value of over £500,000, encompassing residential and commercial buildings.

"We have worked with EOS on a number of projects," said Neil Scott of SCL. "They consistently deliver a high level of service and their attention to detail made them the obvious choice for a development as high profile as North West Cambridge."

To form the external envelope for the decorative facades finishes, fully engineered SFS infill walling solutions have been specifically designed by EOS for the re-reinforced concrete frame of the North West Cambridge Development. To design and develop the SFS facade solutions for each of the individual buildings, EOS formed a strategic alliance with two of the architectural firms working on the project - Mecanoo Architect from Netherlands who partnered with BAM and Stanton Williams who partnered with Wates.

The vision for the North West Cambridge Development was to create a new district within the City, which encapsulates an eclectic mix of both commercial, academic facilities and urban residences – enhancing educational provision and quality of life for the University and ultimately the City.



Versatility and Adaptability

Steel consistently rates higher than other technologies when it comes to versatility and adaptability of construction. It can be configured depending on the requirements and prerequisites of each project. Every sector is different and can benefit from the range of advantages provided by this pioneering material and the advanced engineering solutions that support it.

For example; education buildings require spatial planning and flexible use of space, as well as robust structures that hold control over vibrations and acoustics, making SFS infill walling, an ideal solution due to maximised internal floor spaces. Competitive sectors such as retail take advantage of the flexible, lightweight attributes of steel to create frames that are both time and cost effective, through the use of offsite constructed steel.

EOS are able to provide structures that minimise time spent on site, resulting in a fast return on investment and a predictable occupation date. When used in high rise buildings, steel is selected for its strength, lightweight properties and speed of construction whilst industrial buildings take advantage of its ability to create large spanning spaces cost effectively.

The team of professionals at EOS have many years of experience in the light gauge steel frame construction and manufacturing sectors and are available in partnership with our sister companies - Siniat and Promat – as part of the Etex Building Performance Group, to provide assistance and advice on a range of matters, including; LGSF application; structural engineering; sustainability and energy performance; acoustics and fire performance; flooring systems; roofing systems; cladding & rain screen systems. Our specification advice helps our clients to meet designed performance targets.

EOS are able to provide clients with an all-inclusive, fixed price package – supplied with proprietary brackets and fixings required, as well as double studs/opening jambs/DSL lintels and cills, despatched from the factory pre-assembled. This service is ideal for creating bespoke systems as it is completely flexible – should the client require the product to arrive unassembled, EOS will pre-punch sections in the factory, ghost assemble and supply, together with providing all the necessary screws and special drill bits ready for assembly and installation onsite.



INSIDE
OFFSITE



To find out more about our offsite manufacturing processes, why not attend one of our CPD accredited Inside Offsite Factory Tours?

Our experienced team guide delegates through the entire design and construction journey, offering in-depth insight in to our offsite technology and processes.

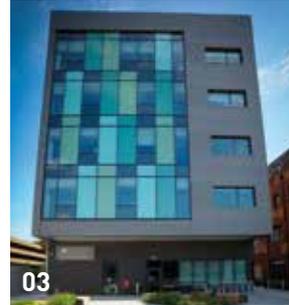
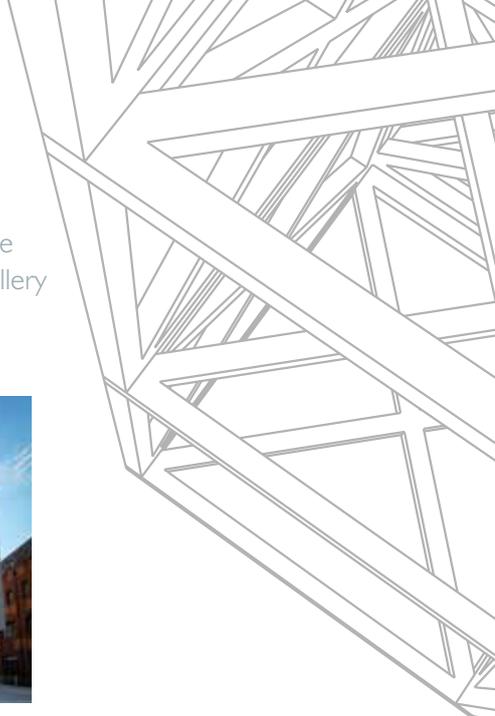
To register your interest for our 2018 tours, please email eos@insideoffsite.co.uk

If you have a project requirement that you would like to discuss, our technical team will be happy to assist.

Simply email: enquiries@eosuk.org

PROJECT GALLERY

From residential and mixed use schemes through to education, commercial and healthcare projects, EOS has a wealth of experience across all construction sectors and our image gallery offers an insight in to some of our work...



01 Sesame Apartments 02 Vita - Ruskin Square 03 Sarah Swift Building, University of Lincoln 04 Alfa Laval 05 Dickens Yard 06 Skyliner Way 07 Barrier Park 08 Westfield House 09 Blackfriars Circus
10 Advanced Manufacturing Building, Nottingham 11 Southwark Town Hall Student Accommodation Development 12 Capital Towers 13 Heathside and Lethbridge 14 Holiday Inn Express, St Albans

YOUR FRAMEWORK FOR OFFSITE CONSTRUCTION

As pioneers of light gauge steel construction, EOS Facades specialise in the design, manufacture and supply of a wide range of steel sections for panelised or volumetric offsite solutions.

Through careful design detailing and value engineering, EOS Facades is able to offer the highest quality award winning light gauge steel solutions - delivering environmentally sustainable projects on time and to budget.

As an advanced high performance offsite solution, steel is a robust, rigid and dimensionally stable material that does not suffer from movement created by moisture related issues. Light gauge steel is perfectly positioned to meet construction industry demands – it is future proof and future ready.

If you have a project in mind then why not challenge EOS Facades to help value engineer the most efficient solution for you?



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