

insider

May 2013

DESIGNED, SUPPLIED AND INSTALLED
BY SAS PROJECT MANAGEMENT

manufacturing world-class interiors

For this issue of the Insider we are highlighting the diverse work that SAS Project Management undertakes



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This is the first issue of the Insider for 2013 and it's evident that SAS International has been supplying landmark projects around the world with the high quality and value-driven solutions that our customers expect from us. Producing solutions for the transportation sector is very much at the forefront of this current work as you will see on the following pages, alongside work in commercial offices and other sectors.

You will see in this issue how SAS International's Project Management division works closely with architects and contractors on projects, meeting and exceeding expectations from design stage right through to completion, as part of the project build team.

However, the majority of the product solutions delivered on site could not be achieved without the close links between SAS Project Management and our factories. With this approach we achieve manufacturing excellence and deliver value to our customers.

You will also see in the round-up from our manufacturing facilities that there is continued development too with new machinery and embedding our Lean manufacturing culture.

We are increasingly using social media channels to communicate to clients (both existing and potential) about what we are able to offer. You can read more about this on page 23 in our new 'digital corner'.

We always appreciate your thoughts. The Insider grew in size and developed even further last year, and your contributions make a real difference so please keep sharing your ideas, stories and feedback with us throughout 2013.

Rosa
Rosa Lenders, Editor

The Insider brings you news from every part of the SAS group. We would like to have your feedback and contributions, including your views about the changes we have made to the Insider. Our email address is sasinsider@sasintgroup.com



Inauguration ceremony held and Kolkata Airport opens for business

SAS meets environmental compliance for interior fit-outs

We have just launched a series of new environmental statements. These will help our customers and project teams around the world to meet the increasing demand for environmental compliance to BREEAM, LEED Green Star - Office v3 compliance, SKA, QSAS and Estidama (Pearl Building Rating System). You can download the statements from our website at www.sasint.co.uk/statements

Covering the full range of our interior products, the statements provide compliance details for all SAS International's solutions including partitioning systems, doors and suspended ceiling systems.

SAS International's Malcolm Stamper, who also chairs the Environmental Group of the

Association of Interior Specialists (AIS), says: "Sub-contractors, for example, are regularly asked to demonstrate they have installed products that comply with environmental standards. These statements have been designed to answer any questions being asked by the supply chain."

The new statements cover compliance to BREEAM, LEED, Green Star – Offices v3 compliance, SKA Offices and SKA Retail, QSAS and Estidama (Pearl Building Rating System).

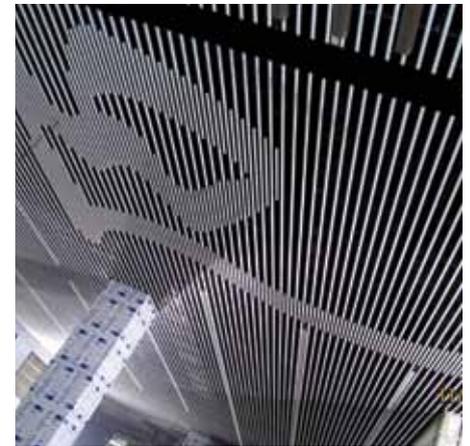
You may remember from Insider 20 that SAS International was the first ceiling manufacturer to produce ISO 14025 Environmental Product Declarations for its entire range of ceiling systems.

An inauguration ceremony has been held at Kolkata's brand new state-of-the-art integrated airport terminal. SAS International has supplied 60,000 sq metres of our linear ceiling system, SAS Tubeline for the project.

Using infill tubes in different sizes clipped to the carrier, a series of script pattern effects have been created at ceiling level.

With 128 check-in counters, plush VIP lounge and in-line baggage handling facilities, the Terminal can accommodate more than 7,000 passengers per hour. It is anticipated it helps Kolkata, the capital of the Indian state of West Bengal, become a gateway to the East, attracting not just tourists but also connecting businesses.

The official inauguration of the new terminal in Kolkata was performed by the President of India, Shri Pranab Mukherjee in January, with airlines moved into the new facility in March.



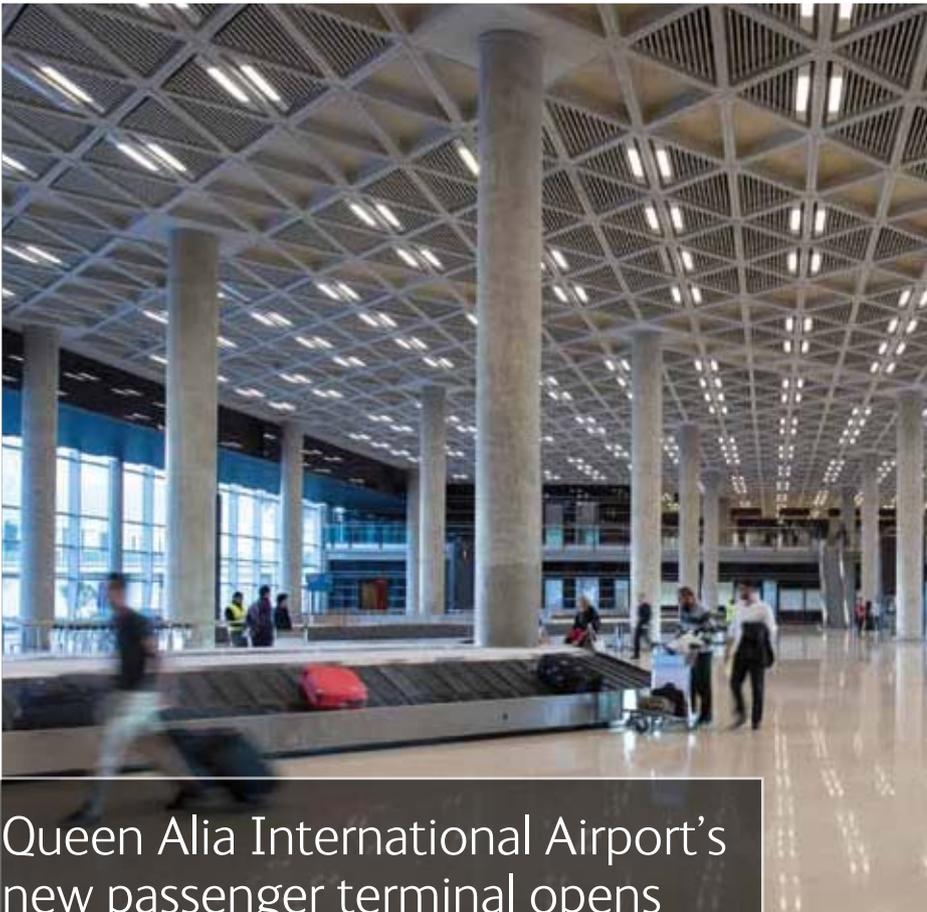
New design for business cards

We have recently redesigned our business cards in line with our corporate literature and branding as an interior products manufacturer. The cards feature images from a range of projects and are very eye-catching.



The different templates for the cards reflect our entire business: SAS International, SAS Direct, Middle East, Partitioning and Doors, Project Management and Room Comfort. Each set of 250 cards has 10 or 20 different images.

If you require new business cards, please contact Rosa Lenders.



Queen Alia International Airport's new passenger terminal opens

Last month saw the official opening in Jordan, by His Majesty King Abdullah, of the Queen Alia International Airport's (QAIA) new passenger terminal.

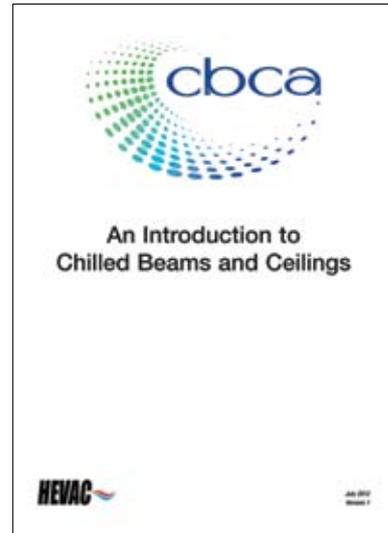
A range of Architectural Metalwork solutions, including 12,000 sq metres of SAS Tubeline, manufactured at Apollo Park, were supplied for this prestigious project.

SAS International worked closely with architects Foster + Partners to develop an acoustic solution

for the environment that would fit within the building's concrete canopies.

Curved lighting grilles and bespoke triangular ceiling panels were also designed and manufactured at Maybole.

The new 103,000-square-metre terminal can handle 12 million passengers annually, compared with the old terminal's 3.5-million-passenger capacity, according to the Airport International Group (AIG).



CBCA launch new Guide to Energy Efficient Cooling

The Chilled Beams and Ceilings Association held a press launch for its new Guide 'An Introduction to Chilled Beam and Ceilings' at the end of last year. It was hosted by CBCA Chairman, SAS International's Andrew Jackson.

Andrew said at the launch: "This is the first time members of the CBCA have shared their extensive knowledge and experience to ensure that the knowledge and specification of chilled beams and ceilings is fully understood."

A Technical Fact Sheet – Thermal Comfort, the first in a proposed series, was also issued by the CBCA in January. More information on these items can be downloaded from www.feta.co.uk/cbca

SAS International presents Award in Dubai

The Avenue, a Dubai development by Meraas Holdings, won the Construction Week Commercial Project of the Year Award in December.

SAS International was an associate sponsor of the event, with Construction Week magazine. International Sales Manager, Mike Collins, presented the award to Omar Delawar, Chief Projects Officer at Meraas Holdings, at the Awards ceremony and gala dinner in Dubai.

The Avenue is a retail project that includes restaurants and shops but its pedestrian-friendly design offers something different from Dubai's many malls. It was praised by the Judges for being a great example of a regeneration project, and by one as "the shape of things to come".



The Construction Week (CW) Awards celebrate the achievements of the region's construction industry. The ceremony in December was the culmination of regional events held in Oman, Qatar and Saudi Arabia throughout 2012.

The 2012 event saw Awards presented in 17 categories. The Masdar Institute of Science & Technology (MI) was named Overall Project of the Year, beating more than 20 other project entries. The award came after the project had already won in the category Sustainable Project of the Year.

Al Shaqab Equestrian Academy wins awards



Architect's Leigh & Orange design for the Al Shaqab Equestrian Academy in Doha, Qatar have been recognised at an international level, and received two accolades at Hong Kong's biennial Quality Building Awards.

The Academy was the grand winner in the 'Project outside Hong Kong' category, and received a special award for 'Quality Architecture'.

SAS Project Management co-ordinated the design, manufacture and installation of two different shaped service modules in the prestigious stables and Emir veterinary buildings at the equestrian complex, working to meet Leigh & Orange's design aspirations. The ISMs integrate air conditioning ducts, grilles and lighting.

SAS International sponsors award at 2013 British Council for Offices Awards

Once again SAS International is supporting the British Council for Offices (BCO) awards – the "Oscars" of the workplace interiors industry. We are sponsoring the 'Fit out of Workplace' Award for both the BCO's 2013 National and Regional Awards.

Regional ceremonies for shortlisted participants will take place throughout April and May.

Meanwhile the winners of the National Awards will be announced in October.

With over 40 years' experience working in the commercial office sector, SAS International is working with the BCO to showcase the 'best of the best' in workplace interior design. The annual BCO Awards provide recognition for top quality design and functionality, and a benchmark for best practice.

New SAS Project Management brochure

In this issue of the Insider there are a number of articles which look at the work of SAS Project Management. The Marketing team is also producing a new brochure on SAS Project

Management which will feature information about SAS Project Management and images from projects. Look out for full details in the next issue.

New SAS Corporate presentation

To complement the SAS Corporate video and SAS Corporate brochure, the Marketing team is producing a Corporate presentation that can be used for meetings and will be available as a PowerPoint file. Providing an overview of SAS International's interior fit-out solutions and in line with the Corporate video and Corporate brochure, it will emphasise SAS International's customer focus, expertise and design-led approach.

HCP Goes on Syteline and Inventor

HCP, the specialist heating division of SAS International based in Hastings, is now set-up with Syteline access. Syteline is SAS International's group IT management system used by a variety of people including factories, sales & marketing and sales order processing.

HCP Project Co-ordinator, Paida Sedze, spent time with Estimators Michael Sadler and Malcolm Hilton training them on how to add projects and estimates onto the database.

Meanwhile HCP Operations Co-ordinator Richard Aplin, based in Bridgend, visited Hastings for a period of weeks to run sales order processing and Inventor drawings in parallel with the offline methods that had been used, to ensure a smooth transition. Inventor is a 3D drawing software package which is used to visualise products before manufacture.

HCP

Syteline access and Inventor "seats" are now in place and HCP is live on Syteline. This has increased visibility towards reporting HCP projects and improved project forecasting.

The Syteline estimating module will soon be trialled on radiant and trench heating projects.

A range of new case studies have been produced for recently completed projects.

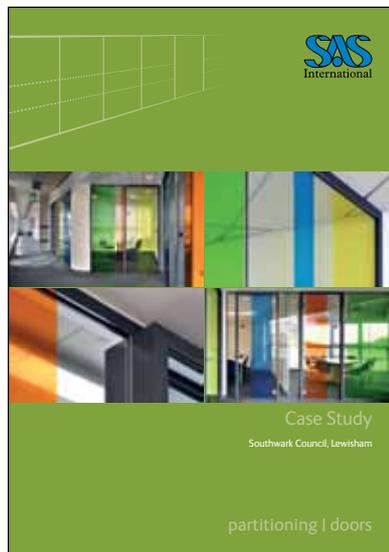
Here's a selection, which can be downloaded from our website.



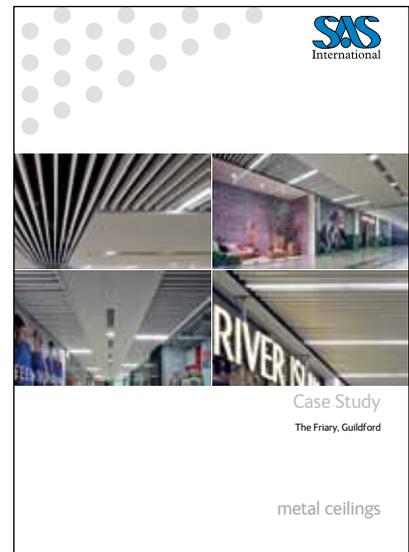
Al Shaqab Equestrian Centre, Doha
ISMs and Bulkheads, Architectural Metalwork



Laboratories GlaxoSmithKline, Paris
System 330, Metal Ceilings
(available in English and French)



Southwark Council, Lewisham
System 8000SG, Partitioning | Doors



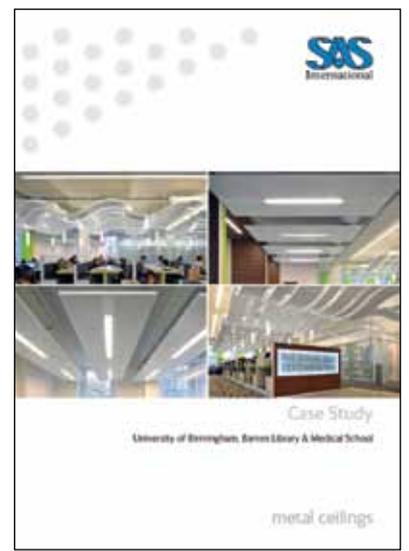
The Friary, Guildford
System 700 & Project Management,
Metal Ceilings



Wakefield Civic Offices
ISMs with Passive Chilled Beams & Project
Management, Room Comfort



Eqwater, Paris
System 300 and 250, Metal Ceilings
(available in English and French)



**University of Birmingham, Barnes
Library & Medical School**
Linear Waveform ceiling and System 600 Acoustic
Rafts & Project Management, Metal Ceilings



Marks & Spencer, So Ouest, Paris
System 330 ceilings



Mederic, Paris
System 330 chilled ceilings

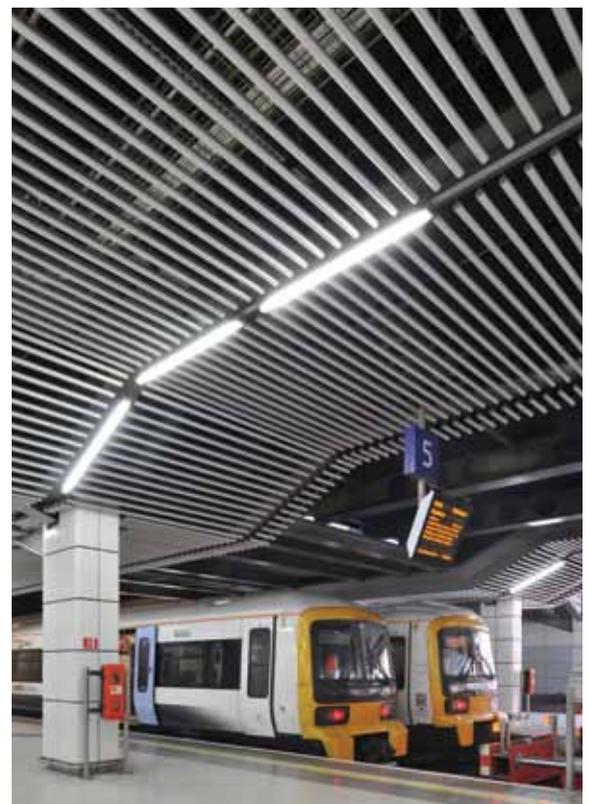


Challenger, Bouygues HQ, St-Quentin-en-Yvelines, France
System 330 ceilings



Blackfriars Bridge Station, London
Bespoke soffit lining with triangular metal panels

Photos from recent projects are available, here's a selection



Cannon Street Station, London
Tubeline ceilings

SAS Project Management appointed for fit out of Bankside development in London

A landmark residential scheme, NEO Bankside is one of the London's most desirable addresses and has been designed by world-renowned architectural practice, Rogers Stirk Harbour & Partners.

The development, in an unrivalled location beside Tate Modern on the South Bank of the Thames, offers 217 stunning luxury apartments and penthouses in four striking glass pavilions rising into the skyline, with views towards St Paul's Cathedral and the River Thames.

SAS Project Management has been appointed by main contractor Carillion Construction plc on the fit out at this prestigious development for developer GC Bankside, a joint venture between Native Land and Grosvenor Estates.

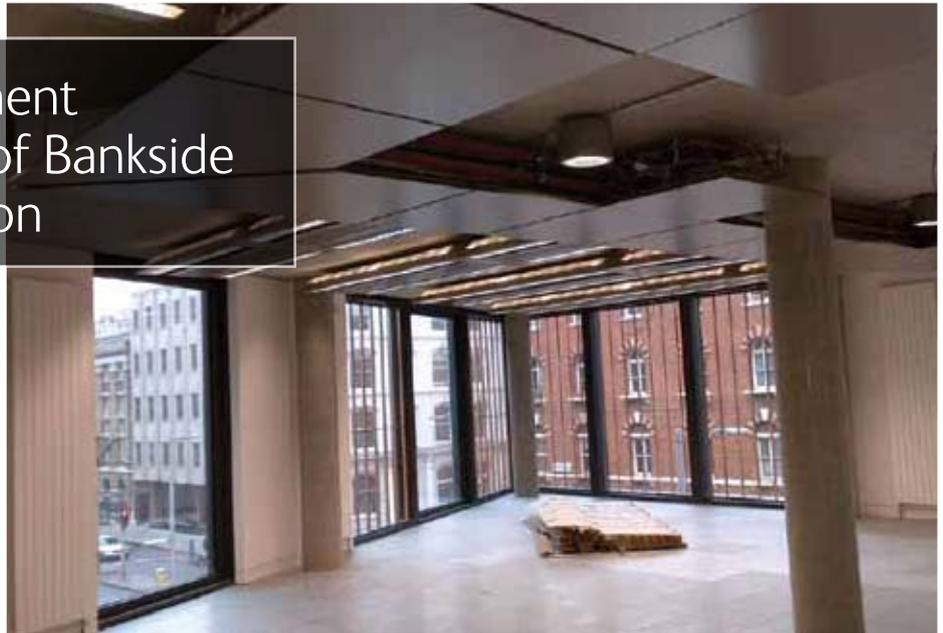
SAS System 600 bespoke panels, manufactured in Maybole, will be installed. These are for the lobby areas on floors 1 to 5 for the Phase 2 development, located on Summer Street/ Southwark Street SE1.

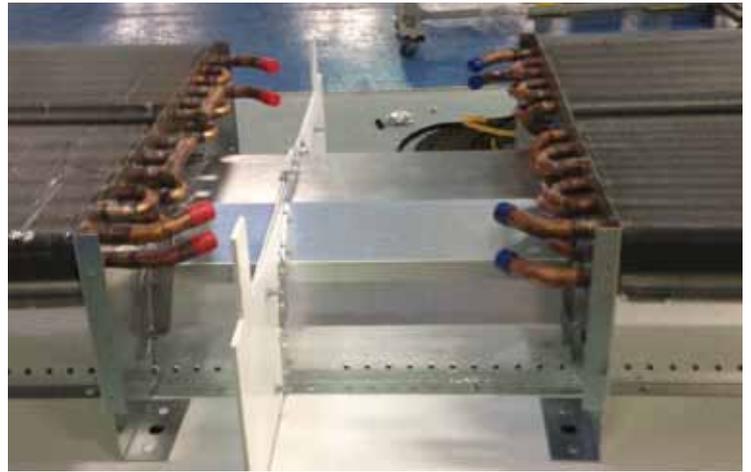
The bespoke panels are being supplied to cover services and pipework within the ceiling plane, and achieve a high quality internal finish that is in keeping with this prestigious development.

With chilled beams already fitted, SAS Project Management needed to design panels to fit around the beams, and arrive at a solution that would work easily on site given the constraints and achieve the right look.

A 20mm gap between the panels is important to allow for alignment of the panel with the adjacent chilled beam when the panels are installed. As part of the solution SAS Project Management has therefore designed a bespoke infill strip to be manufactured and finished in matte black paint. This will conceal the view of the pipes, ducting and soffit above through the 20mm gaps, and complete the aesthetic finish.

The installation of the strips was also given consideration in advance. This is a benefit of SAS Project Management's approach which enables fast programme and high installation standards.





London's King's Cross development to feature ISMs designed, supplied and installed by SAS Project Management

Developer Argent's King's Cross Central scheme is a significant mixed use development, which will comprise of retail and office spaces, alongside homes and civic amenities. The development has been designed to incorporate both the heritage of the original Victorian structures within the site, along with exciting contemporary designs.

The B2 building, designed by architectural practice David Chipperfield, is one of a series of six office blocks. The building sits at the southern tip of the King's Cross Central development site and is prominently located next to the new entrances of King's Cross and St Pancras mainline stations.

As with all the office buildings at King's Cross, the very latest technology has been specified to help reduce running costs for the occupiers and

minimise environmental impact. The B2 building is designed with an exposed soffit, and will feature both active chilled beams and opening windows so that it can be ventilated mechanically or naturally. The beams are currently being made made at our Bridgend factory (see photo in top-right corner).

SAS Project Management has won the contract to design, supply and install the chilled beams for the project, working alongside both the architects and main contractors BAM Construct UK.

Design work has been carried out and a mockup of the bespoke chilled beam constructed and tested in the new, specially-designed Test Centre in Reading (see photo in top-left corner).

The Test Centre works as a 'room comfort laboratory' where the chilled beam designs can be tested, monitored in situ for key performance output and assessed. This in turn helps SAS Project Management to understand any specific manufacturing capabilities that may be required when the mock-up is ready for production.

The chilled beams for this project were tested in a performance situation within a corner room, with a warm building façade reaching up to as much as 31 degrees C.

The first phase of 112 integrated service modules, containing the chilled beams, have been assembled at Bridgend for the project. Luxonic Lighting designed the luminaires for the ISMs.

Birmingham New Street Station

SAS Project Management is on site at Birmingham New Street station (see issue 20 of Insider) working alongside electrical and mechanical services contractor NG Bailey. The installation of SAS International manufactured bulkhead panels to Platform 8 has been completed, along with primary steelwork support and cable management trapeze bracketry, which supports the electrical and mechanical services being installed.

Work is now underway on the Platform 9 bulkheads. After being stripped out, the SAS Project Management team will set out and install the new bulkhead and luminaire panels that have been manufactured at Maybole.

System 600 Raft ceilings are also being designed by SAS Project Management. These will be installed on the platforms, between the bulkheads on Platforms 8 and 9.

SAS Project Management has also been asked to carry out the design, supply and installation of ceiling disks for the refurbished station (similar to those SAS Project Management designed for Heathrow Terminal 4). These will be installed above an area on the main concourse, known informally as the "kiss and ride" area.

Ferrari Egham

Since 1967 Maranello Sales Ltd has operated from the art deco Tower showroom in Egham, Surrey and last year it began a multi-million pound investment and refurbishment programme on the site.

SAS International is supplying its popular System 8000 partitioning to contractor Tapper Interiors for the interior fit-out of this project. The head track has been recessed into the plasterboard and walls. Curved glass is being installed for this project.

Whilst the exterior of the building is being restored and maintained, the majority of the project investment is internal with a new brand identity designed to provide a welcoming environment for customers.

The aim is to create a background to showcase the eye-catching Ferrari cars, combined with outstanding customer facilities. It will provide a place to relax and enjoy the purchase and ownership experience which includes a customer lounge and coffee bar.



Majid Al Futtaim Polyclinic, Dubai

After a recommendation from interior fit-out contractor, AMBB Interiors, and meetings with the client architect, Tahpi, SAS International's System 150 ceiling solutions have been chosen for a significant new healthcare project in the Middle East.

Interior design input is being provided by Bluehaus, an established design consultancy and practice in the UAE, for the first Majid Al Futtaim Healthcare Clinic.

Dubai's Majid Al Futtaim Healthcare, the healthcare arm of UAE-based developer Majid Al Futtaim (MAF) Holding, has entered into a strategic partnership with Indian hospital chain Fortis Healthcare to manage the clinics at its malls across the region.

This first facility, a Day Care Specialty Clinic located in Deira City Centre, one of Dubai's largest shopping malls. It will house consultation chambers, an endoscopy room, a minor OT, day care beds along with radiology & pathology facilities. It is planned that the Clinic will provide medical care to a wide spectrum of the population in Deira, and the adjoining areas of Bur Dubai, Karama, Oud Metha, Al Qusais and Al Sharjah.

Liverpool James Street Station



SAS Project Management is now on site at James Street station, the second of three underground train station refurbishment projects in Liverpool (see pages 20-21 for the work at Central station). Morgan Sindall (Construction) plc are the main

contractors and the project architect is Capita Symonds. SAS International has again supplied architectural metalwork solutions including tunnel linings and wall panelling for the project.



International Bank DIFC

The first branch in Dubai of a well-known Asian bank is close to being opened. This is an important step in the bank's overseas operations strategy and the new branch will provide significant support to expand the bank's presence in Middle East and North African markets.

The new premises are located in the Dubai International Finance Centre (DIFC). They were designed by award-winning architecture and interior design studio, AK Design, which has a head office in Dubai.

SAS International has supplied System 150 tiles for the project from our Dubai warehouse. Al Tayer Stocks, is the fit-out contractor on the development, with Prosperity Painting Works installing the metal ceiling systems.

Oxford Brookes, Phase 2

In Issue 21 of the Insider we announced that SAS Project Management had won a contract at Oxford Brookes University for a two Phase project.

With the development project at the University now in its second stage, SAS Project Management is working on the design, supply and installation of cladding solutions for the new Library and Teaching Building - Block A and Block B.



This is a photo of Galvanised Angle and Plywood Bands



Metal Panel, Vertical Extrusion & Bespoke Horizontal Ledge.

Metal panels, special aluminium extrusions and general support structures have been manufactured by SAS International for the project. Bespoke cladding solutions, made from Glass Reinforced Concrete (GRC), are being supplied in two special "colours" - a silver grey and a darker grey - as specified by the project architects, Design Engine Architects, and will be installed by SAS Project Management.

As with Phase 1, SAS Project Management is additionally providing design co-ordination for all associated trade contractors.

Credit Agricole, Dubai

In issue 20 of the Insider we reported that SAS was on site at Credit Agricole, Pasteur, Paris. Now SAS International is supplying System 330 and System 205 ceiling solutions for the fit-out of Credit Agricole's offices in the Maze Tower, Dubai.

Contractor Al Tayer Stocks LLC will be installing the ceiling systems, and recently spent time at SAS International's Dubai facility for product training and work shop discussions.

Architects for this project Woods Bagot, have specified the SAS International ceiling tiles in an ultramicro perforation pattern, with a SAS Fine Textured (SAS FT) paint finish. The architects had seen this perforation design and paint finish at our Dubai office showroom area and liked the unique effect that was produced.

UTC Carrier Offices

SAS System 150 has been specified by London and Dubai based architectural practice Pringle Brandon Perkins + Will, for global business UTC Carrier's offices in Dubai.

ISG Middle East has been awarded the fit-out contract for the project

An order placed for 2,000 sq metres of SAS International's System 150 for the project has been supplied from stock held at SAS International's Dubai warehouse.

Carrier is a member of the United Technologies Corporation (UTC) which operates in more than 180 countries, and Carrier is the world's largest manufacturer of air conditioning, ventilation, heating and commercial refrigeration systems.

Abu Dhabi Educational Council HQ (ADEC)

Over 3,000 sq metres of SAS International's System 130 in Alugrid Q, with 100 mm plain borders, is being installed at the Abu Dhabi Educational Council Headquarters building, through subcontractor GCG Interiors. The System 130 ceiling solution was manufactured in Bridgend. In addition, SAS International's Dubai warehouse has also supplied grid and perimeter trims for the project.

Managing design-led installations on major projects



SAS Project Management is the specialist design-led installation division of SAS International. With SAS Project Management being part of the SAS group, we can offer our clients added value. It has been important for winning work in some of the more complex fit-out schemes SAS International has been involved with.

You will see from the pages of this issue of the Insider that SAS Project Management has experience working on transportation, retail and leisure (see Insider 20 for the award-winning work at Westfield Stratford City), commercial office, education and other public building projects.

Working alongside clients, architects, consultants and main contractors, the SAS Project Management

division manages such projects through each stage of design, supply and installation.

Tom Hodgkins who heads up SAS Project Management in Spain says that taking over concepts from architects, coming up with ideas as to how they can be realised and are within the cost constraints of the end client is a core part of SAS Project Management's role.

Tom has worked for SAS International in Spain for six and a half years and was part of the project team for 40,000 sq metres of suspended metal ceilings at Repsol's Headquarters in Madrid, Spain. Helping the architects, Aguirre Newman, design detail for the project was handled in the UK, while Tom managed other elements on the ground.

SAS Project Management provides a single point of contact for a job like this. The aim is to deliver the best possible value on each project. Working in this way helps minimise risk factors for main contractors and end clients - there is the reassurance through working with SAS Project Management of getting the job done, and getting it done right.

This is particularly important when we are asked to work with technically challenging applications or where there is a high degree of mechanical or design complexity in the building project.

Working on bespoke metal ceilings, performance partitioning, room comfort products and architectural metalwork solutions, SAS Project Management will also use Third Party proprietary systems for some projects.



SANTIAGO AIRPORT

With the work that SAS Project Management undertakes, new product innovations often result. This was the case with the Santiago Airport project in Spain. The new terminal building, designed by Alberto Noguerol and Pilar Diez, featured a 'Y' shaped departure lounge - a triangular form. Traditionally the open cell ceiling solution that would be specified for this sort of building would be square in design. SAS Project Management however came up with the design we now call SAS Tricell. This three-sided system, which can easily be repeated, provided the correct geometric form to work within the ceiling shape of the departure lounge.





Being involved at the earliest stages of the project ensures the complete understanding of its requirements and helps ensure the project delivers.

SAS Project Management will discuss initial ideas with the client design teams, and develop these to meet project demands and help fulfil the aspirations for performance, cost and architectural aesthetics.

As each project is bespoke, unique design and performance criteria will be established, and a detailed design proposal and drawings produced.

The estimating team will look at costs of labour, materials, plant and any other external elements and an initial cost proposal will be created.

Both of these elements have to be submitted often as part of an initial tendering process.

A site survey may also be required for refurbishment projects. This survey captures specific considerations and constraints on the particular site for the build.

This information is critical to factor in before actual manufacturing drawings are produced.

Product mock-ups are produced for certain projects as it is often difficult to visualise complex product applications, performance checks and design adjustments can also be made easily, prior to manufacture.



You may have seen such product developments in progress at our mockup area and Test Centre in Reading. With its proximity to airport and rail connections, it is also easy for our clients to visit Reading and see this work in progress.

Another important part of having this technical design capability in-house is the manufacture of bespoke solutions is considered at the outset. Value engineering in this way means waste is designed out and all efficiencies are realised in the manufacturing process.



The relationship between SAS Project Management and SAS International's manufacturing teams is an important factor in providing all round better value for projects. Communication between the SAS Project Management teams and our factories is done directly, while Logistics Manager and Buyer, Chris Ellingham will for example plan and co-ordinate deliveries.

With consideration given to the practical installation on site, the design process, including offsite prefabrication, can have an important role to play and requires the clear co-ordination that SAS Project Management and SAS International, as the manufacturer, can easily fulfil.

VODAFONE HQ NEWBURY

One of the biggest chilled beams projects that SAS Project Management has led was at Vodafone's world headquarters building in the UK. Integrated Service Modules were designed that incorporated passive chilled beams, luminaires and a range of building services. Over 8,000 linear metres were prefabricated and pressure tested in factory controlled conditions, delivered and installed onsite to meet a tight project schedule. The 14m modules were split into three manageable sections for installation purposes. Architects Fletcher Priest and consultant engineers Cundall wanted a solution that was functional and provided visual drama for the office space. SAS Project Management delivered that!



Prefabricating products and systems under factory-controlled conditions allows us to ensure quality control and compliance to tolerances, but also means that these systems can be delivered on site 'just in time' for installation. This in turn means there is less requirement for storage on site and helps to limit opportunities for accidental damage.

Logistics and transportation to site are considered in line with the planned build programme, and with overseas projects particularly transport and shipping needs careful time planning.

Resource planning and management of the project on the ground is overseen by the SAS Project Management site manager. This role also includes liaising with client design teams and often working with locally seconded specialist contractors.

Danny Collins who has been site managing the Liverpool Central station project for SAS Project Management adds that co-ordination with other trades, for example electricians, on the build programme means that flexibility needs to be built in too – sometimes on an hour to hour basis.

Working within a metre of the platform edge, working over the train track and working at night-time also requires special Health & Safety training, for example, that all operatives must be given. Health & Safety considerations however are critical for all SAS Project Management's work.

Considering issues such as this and co-ordinating labour on site is a critical part of a project's success. Alongside this quality of work, progress, costs, productivity, time, measuring against plan, safety certifications, all have to be closely managed.

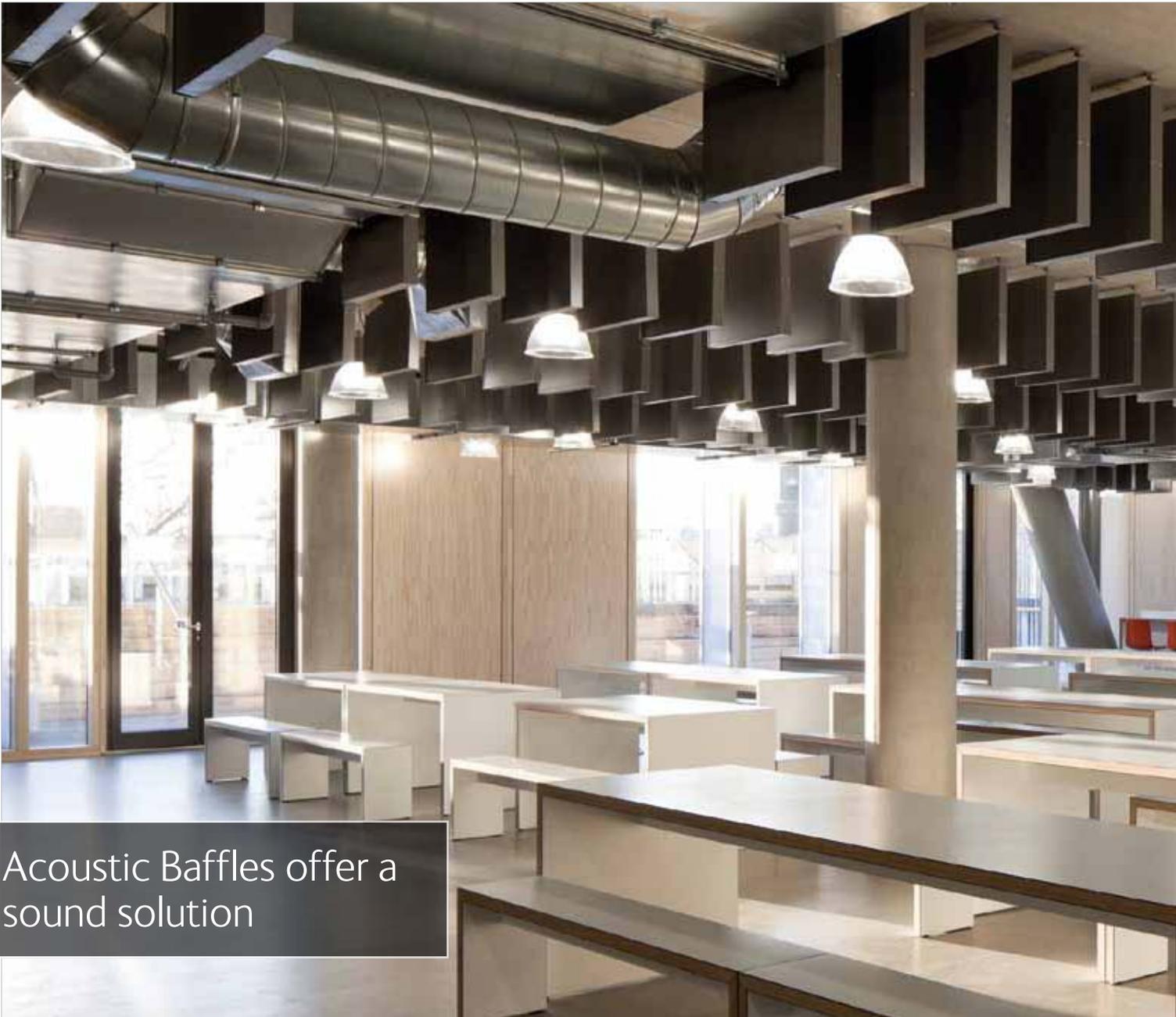
SAS Project Management will also work to manage any issues at this stage, mitigating delays to achieve project goals.

So SAS Project Management is a team of many parts - there are design teams, estimating teams, a project support team, a technical support team and project site managers. They are all part of

ensuring that the aspirations for each project are fulfilled and the construction process is managed from conception through to completion.

You'll find out more on the faces behind the names in SAS Project Management in 'Meet the team' (pages 30-31).





Acoustic Baffles offer a sound solution

Many of SAS International's Architectural Metalwork solutions are designed to meet specific needs in the fit-out of buildings by integrating building elements and services.

However other elements of the Architectural Metalwork range also perform important functions such as meeting acoustic requirements, and enabling other building design approaches to be realised. Acoustic baffles are a good example of this.

Acoustic baffles, suspended vertically at ceiling height, can effectively control any unwanted and drifting noise. They are used in many applications, particularly in spaces that require significant sound absorption such as open plan working spaces.

These spaces are typical of office environments and many recently-designed educational buildings. It has been recognised that excellent acoustics

boosts learning potential as well as office productivity; careful consideration needs to be given to finding the optimum solution for this.

With baffles, sound absorption will depend on the size of each baffle, the number of baffles used and the area and spacing between each one. SAS International works closely with architects to realise their design ideas and specification needs.

For the design of City of Westminster College, by architects Schmidt Hammer Lassen, 2,600 sq metres of baffles were supplied. SAS International manufactured the baffles in 10 different sizes for classrooms and study areas. Both acoustic performance and aesthetic finish were important for this specification. McLaren Construction was the main contractor and RDK Drylining the subcontractor for this project.

Used in the interiors of schools and other educational buildings, acoustic baffles also help to meet the requirements of Regulatory frameworks both in the UK and internationally.

In the UK it is necessary to meet requirements for Building Bulletin 93 (Acoustic Design of Schools) – here baffles provide for acoustic absorption, whilst balancing requirements of BB101: Ventilation of School Buildings - here baffles are specified to allow for sustainable thermal mass cooling to take place.

Thermal mass cooling utilises an exposed concrete soffit to provide a cooling element (see the photo above of City of Westminster College). The concrete acts as a thermal sponge absorbing heat from the air during the day. This heat is then released when the ambient air temperature is lower, generally at night.



This design often incorporates natural ventilation strategies to cool the concrete soffit. Using wind-induced ventilation and pressures generated on the building by the wind, air is driven through openings in the building.

The cool, exterior air forces the warm interior air out. Usually this is achieved through cross-ventilation, where air enters on one side of the building, and leaves on the opposite side through an outlet.

This approach is seen as an energy efficient design for new buildings, and does not just feature in schools.

At Priory House, a purpose-built 6,000 sq metres facility for the Mid-Bedfordshire District Council, ceiling-mounted baffles were specified by the architect and supplied by SAS International for the

main office areas to aid acoustic absorption.

For demanding environments, acoustic baffles can be installed in conjunction with a suspended metal ceiling. But at Priory House the architects also wanted to allow for natural ventilation of the building so the concrete soffit had to be exposed.

Hamiltons Architects' project architect at Priory House, Jorge Ortega said: "The baffles were an ideal solution because this is a naturally ventilated building which relies on cross ventilation at high levels to cool down the exposed concrete soffit, which in turn provides the thermal mass for this particular strategy to work."

He also added that baffles provide vertical surfaces which are easy to clean, permitting extremely low maintenance, an increasingly important consideration over a building's life.

SAS International manufactures baffles in a range of panel sizes and forms and incorporate flat, pyramid, triangular, trapezoidal and curved elements. In this regard they can add a strong visual element within an interior too. For example, SAS International supplied a bespoke waveform acoustic baffle ceiling solution incorporating luminaires for the new Skype Headquarters in Luxembourg.

Such is their ability to provide a flexible and aesthetic acoustic solution, baffles are used in a whole range of potentially noisy environments.

You may remember from Insider 20, SAS International is supplying 60,000m of baffles, manufactured at Maybole, along with bespoke ceilings and bulkheads, to the exciting West Kowloon Terminal station project in Hong Kong.

Completion of three phases at Waterloo station

For Britain's old, crowded stations refurbishing them to become transport hubs for the 21st Century, brings challenges. In three separate phases of work at London's Waterloo station, SAS Project Management has shown it was able to offer a value engineered solution to meet these challenges.

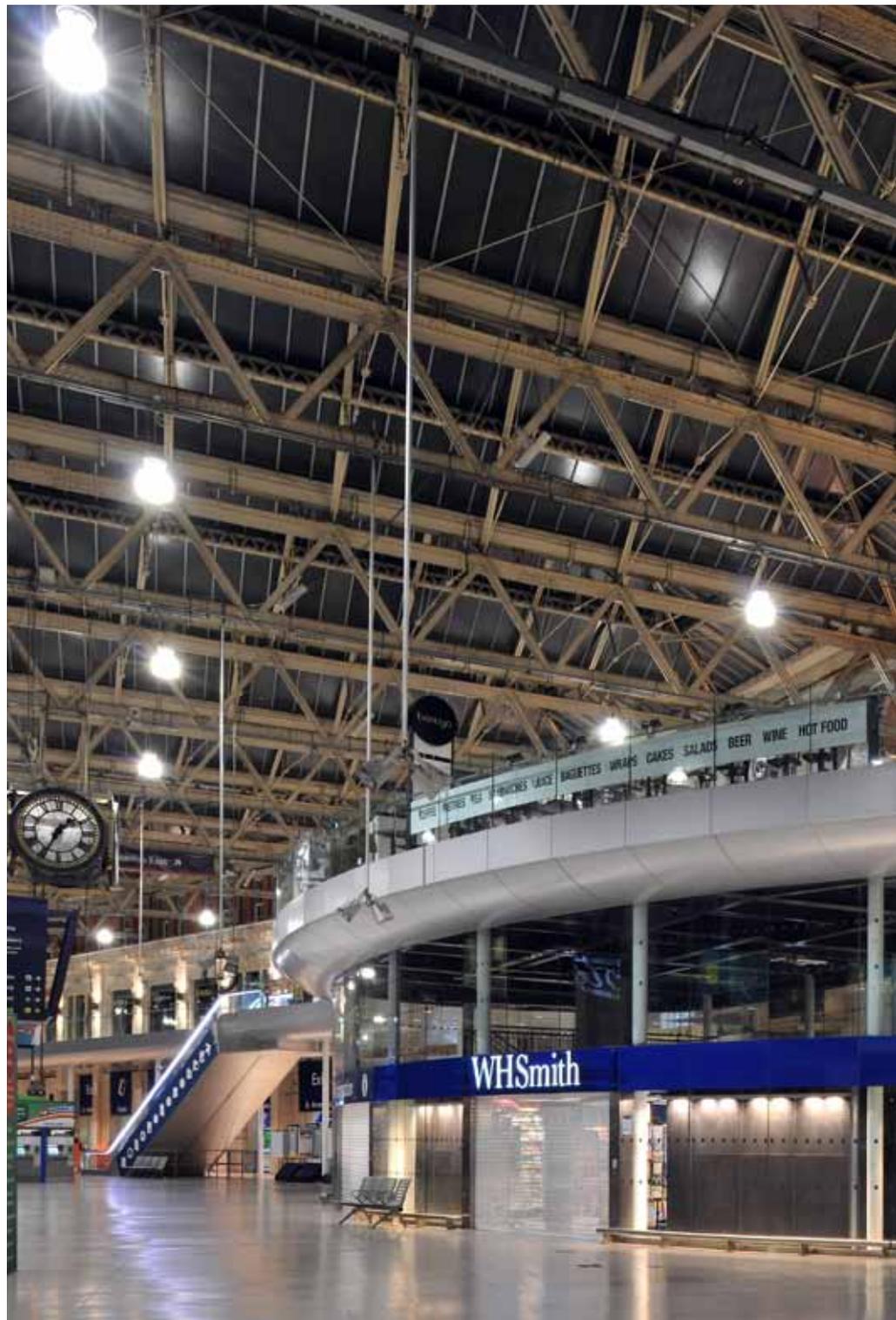
The first phase in 2009, was a major project at the station to create a ticket gateline – now the largest in Europe – across 19 platforms on the main concourse. Installation of automatic ticket gates was carried out to reduce the number of people travelling without tickets and to improve the aesthetic look of the station by providing a platform view from the concourse.

“The programme for completion of these works was extremely challenging and with limited ‘As Built’ information, we were having to investigate the existing fabric, propose a solution and start fabrication almost simultaneously – all this had to be accomplished without causing any disruption to members of the public,” commented Nelson Hanna, Principal Architect at Pell Frischmann, the practice which led the refurbishment design for this phase.

Bespoke metal ceiling tiles, concave coffered tiles with light apertures, bulkhead panels and column casings, finished in SAS Anti-Graffiti paint, were designed by SAS Project Management and manufactured by SAS International in Maybole.

The cladding solutions conceal all services while still allowing easy access for maintenance purposes, resulting in a clutter-free application. Meanwhile, bulkhead panels form closure to the front and back ceiling detail, and along with the ceiling tiles an area of approximately 950 sq metres was covered in this extensive project. Column casings provide impact protection to existing structural columns.

The second phase of work, to refurbish the station's Peak Hour Subway, involved vaulted metal ceiling and stainless steel wall cladding, finished in SAS Anti-Graffiti paint. SAS Project Management again worked closely with bpr architects on the design, manufacture and installation of the architectural metalwork.



Nicholas Whiting, Associate Director at bpr architects said: “The civil engineering involved in opening up these arches was a huge challenge for the project. The lower subways of Waterloo are constructed from Victorian brick arches some 3.5m thick. Once the new openings were instated we needed a bespoke cladding system that could be installed quickly and easily within tight time and budgetary constraints”.

Bulkheads with integrated services were installed along the perimeters in the lift valley of the subway, and stainless steel wall cladding installed

throughout the subway's walkway with stainless steel corner posts and skirting used on the stairs. The stainless steel skirting has slotted perforations at the bottom for ventilation to otherwise damp walls. The wall panels also feature ventilation slots.

The third phase, completed last year, was the installation of a 220m retail balcony - currently the longest at any British railway station, which forms a Mezzanine level above the main concourse at Waterloo. You can see this impressive balcony on our cover!



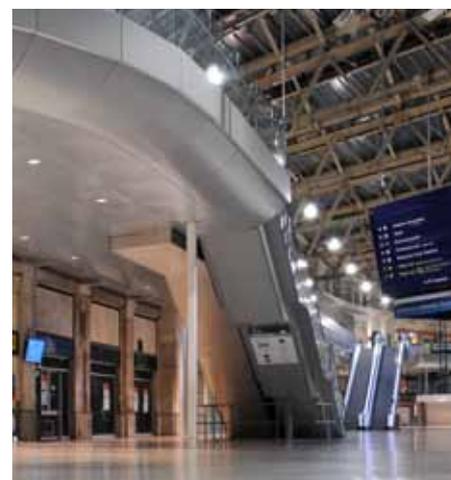
A series of escalators and stairs connect the ground floor level to the Mezzanine. Working under main contractors BAM Construction, SAS Project Management designed and installed an innovative solution for the curved aluminium soffit cladding to the underside of the new Mezzanine level and escalators.

The soffit panels have been specially designed so they provide a secure concealed fix panel system with discreet joints, yet allow access where required to services above. Panel sizes

are maximised using 2mm aluminium to create the overall aesthetic.

Stainless steel and powder coated wall lining and column casings have also been provided to the Level 1 Gatelines which lead to Waterloo East from this upper level.

In each project phase of Waterloo's refurbishment, SAS Project Management has demonstrated how it is solution-led, and driven by delivering quality, innovation and maximum value to its customers.



Phase 1: Ticket gateline (2009)
Bespoke metal ceiling tiles, concave coffered tiles, bulkhead panels and column casings

Phase 2: Peak Hour Subway (2009)
Bespoke metal wall cladding system, System 120, System 150 and System 330 vaulted panels

Phase 3: Retail Balcony (2012)
Wall cladding and column casings

SAS Project Management underground at Liverpool Central Station

In issue 20 of the Insider we looked at the work starting on the refurbishment at Liverpool Underground's Central Station, which is now complete.

Working closely with the architects, Capita Symmonds, and construction and infrastructure company Morgan Sindall on behalf of Network Rail, SAS Project Management designed, manufactured and installed a range of metal solutions for the project.

SAS Project Management was involved at an early stage in the refurbishment, assisting in the selecting of materials to replace the original cladding installed in the 1970s, alongside the main contractors and Network Rail's architects. Key criteria for specification of the new materials were options that would be easy to clean, durable and non-combustible whilst maintaining much of the original support steel framework.

SAS International powder coated steel cladding is being used in passenger areas to provide a robust finish and a durable solution for long-term value. A variety of architectural metalwork was specified for platform access routes including the Wirral line platform and Northern Line platform, escalators and trackside areas.

A bespoke SAS ceiling system incorporating existing light fittings was chosen for the station platform access routes and escalators. Meanwhile an SAS System 200 ceiling variant was specified to provide 30mm open joints to balance pressure from the train piston effect for the Northern line platform.

The architectural metalwork, manufactured at

**26
construction
drawings**

**150
individual
manufacturing
drawings**

**5,000
SAS
ceiling
panels**



SAS International's Maybole site, provides a durable solution which has to handle increased crowd pressure in these busy environments.

Replicating the existing tunnel lining and wall cladding, whilst using the old sub-grid, posed a challenge at design stage to ensure the panels were able to be installed correctly. For the wall cladding this was overcome by designing notches in the side-flanges with adjustable brackets fixed to the flange to suspend panels. The new panels, with impact resistant and anti-drumming backings, were designed to keep weight to a minimum, so as not to impose excessive loads on the existing sub-grid. The overall thickness in many cases could not exceed the original Melamine size to coordinate with the existing

escalators and avoid any reduction in floor area.

The project at Central Station is the first of three stations to be refurbished with James Street and

Lime Street stations to follow. Each will involve the replacement of the wall claddings to tunnels, escalators and passageways.

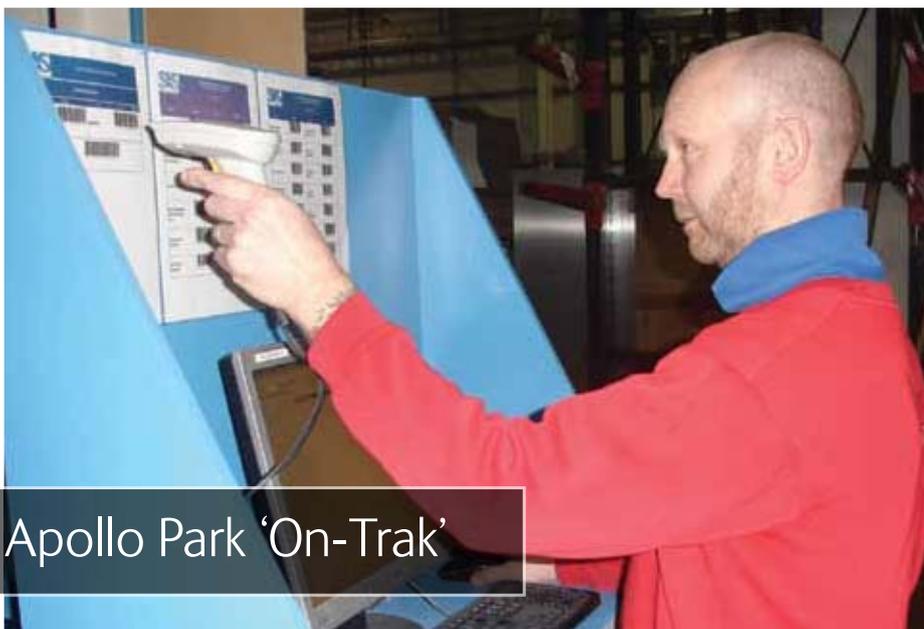


**3.5km
of
bespoke
trims**

**568
vitreous
enamel
panels**

**Peak of
24 operatives
to hit the
handover date
within the
11 week
installation
programme**





Apollo Park 'On-Trak'

Photo of Andy Whittle (Paint Line)

Apollo Park has implemented Labr-trak, a system for fully tracking jobs at each stage of production. The final five production areas have now come onto this system; Paint line Load, Paint line Unload, Fabrication, Partitioning and Open Cell, says Chris Harper, IT Administrator.

In preparation for the roll-out of the system, all charge hands and production managers were consulted to ensure as clean a transition as possible.

Preceding the 'go-live of the system, IT Trainer

Patricia Barnard took all five new departments through Labr-trak Training. The Door Shop and Grid teams also had refresher training at the same time.

After 'go-live' follow up meetings took place with each charge hand and department, and have been held on a weekly basis since to iron out any problems.

All involved should take great credit for a successful project implementation which exceeded any previous expectations.



New General Manager for Maybole

Stuart McFarlane has joined SAS International as General Manager at the Maybole factory. Stuart has worked with a number of organisations in a managerial role, and has a background mainly in the food and drinks industry (whisky and chocolate apparently! – Ed).

New machinery at Bridgend

Bridgend has a new CNC (computer numerical control) machine says Paul Smith, Group Engineering Manager. The 'Ring Bender' can be programmed to generate curves, radii and ellipses in a variety of extrusions and channels.

The closed loop system on the machine means that the programmed curve is monitored as it is being formed and is duly corrected if it should wander out of specification

The machine was used for curving the extrusions being supplied for King Abdulaziz International Airport. It is also using being used to curve multiple radii on the aluminium extruded baffles for the Kowloon train station project announced in issue 20 of the Insider.

Investment has also been made in Roll-forming machinery for a line to manufacture further



EMAC Cold Rolled products. The new line will be producing Macstrut in variable lengths, sizes and gauges.

Macstrut is a channel used by installers to build frames for the support or suspension of

electrical and mechanical services. The slots allow studding (screwed rod) to pass through enabling the creation of trapezes that can be used to support cable/basket tray or pipework.



Getting connected in a digital age



Our Twitter channels are:

@sasintgroup

@sas_direct

@HCP_SAS

Social media channels are being increasingly used at SAS International as a way of communicating what we can offer, particularly to clients and potential customers.

The internet and social media channels help us to connect as never before with people, on a truly global basis.

You may be aware that we have had a LinkedIn profile for some time now (see issue 18 of the Insider). We use this to help stay in touch with architects, clients and other professional contacts.

LinkedIn is a social networking platform which helps people exchange ideas and thoughts through special interest forums as well as seeing more information from, and keeping in touch with, a company such as SAS International.

Many of you have 'liked' our Facebook page; we mainly use the SAS International Facebook page for sharing project photos, case studies, the Insider and any upcoming news. Facebook is a valuable 'word-of-mouth' marketing tool.

Having a presence on LinkedIn and Facebook helps to raise the profile of SAS International with a broader audience. Something that also contributes to this is 'posting' short, regular news and items of interest, known as 'Tweets' through Twitter. These Tweets also feed into our LinkedIn page as updates.

You can follow us @sasintgroup, SAS International has seen the number of our followers grow on Twitter from 1,300 to 10,000! We are also delighted that many of our posts get 'retweeted' by architects and contractors which spreads the word about us to further generate business.

Twitter can drive people back to look at our website as we post shortened 'click through' links to accompany most of our Tweets. We share photos of projects through Twitter too.

Our newest Twitter account is for HCP.

You will probably be familiar with YouTube, and you will find SAS International video content on our YouTube channel: www.youtube.com/

sasintgroup. These videos are also available on our website: www.sasint.co.uk/videos. Video content can be useful for showing practical installation ideas as well as imagery from the building projects that have been finished.

Sharing photos and visual information is something that is fast growing through social media channels. Visually-led information about buildings is popular with both architects and contractors.



LEAN Thinking

Developing a culture of Lean manufacturing has enabled many teams to improve their work environment, and there have been many notable successes to date. At Bridgend, a recent focus for lean thinking has centred on the Paint Line, which plays a critical role in our production process and overall output.

Former Press Shop Manager, David Smiles, who became Paint Line Technical Manager, needed assistance with planning a programme that would allow improvements to the Paint Plant as a whole at Bridgend. He asked the Lean Department at Bridgend for initial assistance in this, explains Geraint Lewis, one of the Lean Facilitators.

David's motivation came from the productive work he had already initiated within the Press Shop through adopting what's called a "5S" regime. This was something David had learned through our initial Lean Training Programme.

The "5S" regime employs the fundamentals of lean thinking. It is principally a system that helps reduce waste and optimise productivity through maintaining an orderly workplace and using visual cues to achieve more consistent operational results.

The "5S pillars", five ideas that all begin with the letter 's' are Sort, Set in Order, Shine, Standardise, and Sustain. Implementation of this method "cleans up" and organizes the workplace basically in its existing configuration; and afterwards helps keep a productive work environment.

An initial audit in February showed that yield was around 5-5.1. The audit also showed that cost savings could be made with additional improvements to how water from the line was treated and cleaned.

Core areas of focus for improvements were identified through "5S":

- procedures needed re-writing in the form of an SOP (Standard Operating Procedure) and displayed conveniently at the appropriate workplace.

- operator maintenance was paramount to ensure the efficient running of the plant over a 16-hour period per day. Full and detailed training was given with the aid of the SOP.
- paint supplier Akzo Nobel was to conduct monthly audits covering all relevant procedures and report back.
- setting targets – it was agreed that the paint plant should improve yield to 5.8, giving an annual saving on paint usage of around £60,000.
- treating and cleaning water, returned to the system via normal waste pipes, would be enhanced through further development of the effluent plant.

With a proven track record behind him, David set about employing the fundamentals of lean through adopting the "5S" regime, and carried out a major overhaul. The below photos from Bridgend show the paint plant, the SOP document reference guide for operations and the detailed schematics of the line.





Comic Relief initiative by SAS Direct team member

Kerem Basmaci, Sales Executive at SAS Direct, has a 10-year old niece called Elliseh who loves recording and editing videos. Elliseh has made her own music video version of X factor winner James Arthur's "Hometown Glory" (starring Kerem!). She made this video to raise money for Comic Relief. You can watch the video on YouTube: <http://tinyurl.com/d459ncl> and donate here: <http://my.rednoseday.com/sponsor/kerembasmaci>



Team from Maybole on the run (for charity)

On 17th March, a team of four from SAS Maybole; David Sinclair, Gary McNeill, Gary Jackson and James McClung, did a 10km Fun Run to support the charity Hansel Foundation.

All four did well, with the fastest of the four being David Sinclair who finished in 18th position of the 72 runners that entered the 10km run.

Burgess Hill staff to the rescue

On Monday 4th March, the staff at the SAS Direct Burgess Hill depot were at hand to help out after an accident happened in the neighbouring warehouse. Ken Fordham, Jamie Walder and Robbie Bowers rushed to the scene to find a woman trapped under a dismantled, loose but

strapped racking on a pallet. With medical and forklift expertise they prevented a bad situation from being much worse.

Other SAS staff from the depot quickly arrived to provide blankets and assistance to the trapped

woman and emergency services. They have been applauded for their coolness and quick response. This situation highlights and stresses the importance of Health and Safety procedures along with quick response timing and teamwork.

Bright future ahead of Go-kart racer Jack

Warren McCarthy, Managing Director of Integra, one of SAS International's customers, is the proud father of 12-year old Jack. Jack is a Go-kart racer with a promising future and vital team member at RL Racing Department.

Steve Armstrong, owner of RL Racing Department, declared himself to be "extremely positive" after the teams' strong performance this spring. In the recent Mini Max race, the team completed a 1st, 2nd and 3rd position in the first heat!

Jack and his team mates look forward to the season getting underway - and it is looking good for the young team. So Join us in wishing Jack the best of luck in the future, who knows, in years to come he could be making his debut in Formula 1 no less!





SAS Bridgend sponsors student

SAS Bridgend has recently sponsored Georgia Tuesday Hope, daughter of Jonathan Hope, Director at John Atkinson Interiors, towards her

goal of £7,000. The 17-year old student is planning to spend a year in Uganda, volunteering for the charity Project Trust. During her time in Uganda, Georgia is going to teach school children English. She also plans to set up an after-school club, as well as volunteering at an animal sanctuary. It sounds like Georgia will have an exciting and busy year ahead of her!



Blackfriars Bridge Station photo shoot



Insider's Editor Rosa Lenders and Slavka Hvilova in full PPE outfit on site at Blackfriars during a night time project photo shoot starting at 10pm and finishing at 3am. Our transport photo shoots take place in these hours as there are less people around and greater access to the site. wWA case study for this project will be available soon from our website.

Christmas fun in Reading

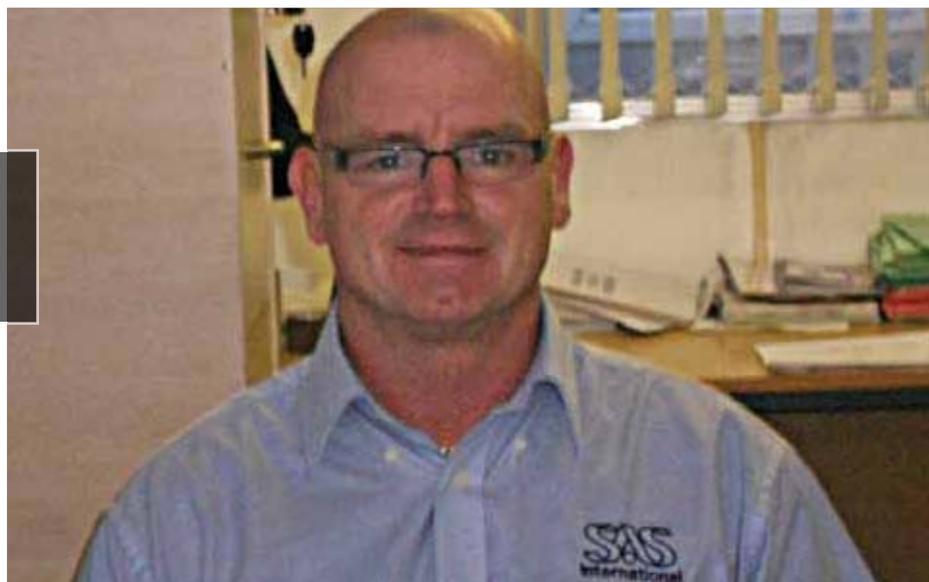
The SAS team at Reading attended a Christmas party at the Malmaison Bar and Restaurant in Reading town centre on Friday 21st December. This was the last working day before the Christmas break.



My Work: Gary Grant, System Supervisor

My current role is system supervisor for ISO 9001 and 14001 at the Bridgend sites. A typical working day involves collecting, auditing and analysing paperwork controlled through ISO 9001 system. My role with ISO 14001 is more of a challenge as this involves all the waste streams within Block 1 and 2. I have to prevent waste going to landfill by finding companies who will remove the waste FOC or pay good money for it. Five years ago as a plant we were sending 20 tonnes of waste to landfill a week. We have now reduced that to on average one tonne per week.

Before joining SAS I was a warehouse assistant, wrapping and dispatching clothes. I joined SAS in January 1988 and my first task was to remove gaskets from a finished product



where the customer had changed their order requirements. Today, 25 years later, I'm still here although my role has changed considerably over the years. From Quality Technician, where I was policing the quality on the shop floor, to a later role where I was running the Paint Line and Assembly on a night shift pattern.

Technology is ever changing. The biggest change for me within my role is how email saves

time. I also use the internet in my job, looking for new outlets for our waste streams.

I enjoy my work colleagues and their friendship. And also the desire to help and change the way we work as a team and a company in this challenging climate.

At work, the biggest challenge I face is reducing our waste to landfill to below one tonne a week.

Corporate Brochure and Corporate Video staff questionnaire

During the past year the Marketing Team asked for your views on the new Corporate Video and the Corporate Brochure that had been produced. As you may remember from previous issues of the Insider, the Video and Brochure were produced to showcase the high quality products and work that SAS International delivers. They also provide an introduction for architects and contractors around the world to SAS International as a company, the range of fit-out solutions we provide, and both feature eye-catching photography.

All staff were sent a link to the Corporate Video and managers asked to make sure staff without access to a computer could view the Video at one of SAS International facilities. At the end of 2011, a copy of the new SAS International Corporate brochure was delivered to each member of staff accompanied by a memo from Marketing Director Andrew Jackson as an overview and introduction to the publication and its role.

In October 2012, a questionnaire was sent out through the computer application 'Survey Monkey' so we could gather your feedback and thoughts on both the Video and Brochure, and to encourage people to watch the Video and read the Brochure who had not already had a chance to do so.

The questionnaire was sent out to all 330 staff and we received 52 responses back. We are pleased to say that over 98% of staff who completed the survey reviewed the Video and Brochure positively. Thank you to everyone who responded and as always, keep your feedback coming in to the Marketing Team on your news and views.

If you have not received a copy of the Corporate Brochure, please contact a member of the Marketing Team. The Corporate Video can be viewed on our website at www.sasint.co.uk/corpvideo



We would like to thank our Long Service Awards Winners for their hard work and commitment. And a big welcome to our New starters.

25 years service



Gary Grant Bridgend
Starting Role: Production Operator
Current Role: System Supervisor

20 years service



Hilary Morris Bridgend
Starting Role: Purchase Ledger Clerk
Current Role: Purchase Ledger Supervisor



Eurshell Fearon Reading
Starting Role: Sales Co-ordinator
Current Role: Sales Executive

Mike Temby Reading
Starting Role: Sales Executive
Current Role: Sales Executive

15 years service

Philip Spence Apollo Park
Starting Role: Sprayer
Current Role: Sprayer

Stuart James Bridgend
Starting Role: Production Operator
Current Role: Storeman

Henrietta Connell Maybole
Starting Role: Paint-line Operator
Current Role: Paint-line Operator

Robert Burns Maybole
Starting Role: Management Accountant
Current Role: Management Accountant

David Fry Reading
Starting Role: Sales Executive
Current Role: Sales Executive

10 years service

Chris Hardy Bridgend
Starting Role: Materials Handler
Current Role: Team Leader Goods In

Robin Dixon HCP
Starting Role: General Manager
Current Role: Operations Director

Colin Fuller HCP
Starting Role: Contracts Manager
Current Role: Contracts Manager

Malcolm Hilton HCP
Starting Role: Estimator
Current Role: Senior Estimator

Alan Green HCP
Starting Role: Contracts Manager
Current Role: Technical Sales Manager

Jonathan Conn Maybole
Starting Role: Paint-line Operator
Current Role: CNC Operator

Colin McGarry Maybole
Starting Role: Production Operator
Current Role: Powder Paint Operative

Kevin Butler Reading
Starting Role: Technical Sales Manager
Current Role: Technical Sales Manager

Christopher Ellingham Reading
Starting Role: Sales Support Co-ordinator
Current Role: Logistics Manager & Buyer

New Faces

APOLLO PARK

Patryk Trojanowski - Planning Engineer
Steven Powell - Maintenance Supervisor

BIRMINGHAM

Kirsty Drew - Trainee SOP
Stephanie Cuneen - Trainee SOP

BRIDGEND

Emma Jenkins - Finance Trainee
Chris Morris - Shift Manager

BURGESS HILL

Toni Clement - Sales Order Processor
Neil Marshall - Glass Surveyor
Jonathon Berry - Sales Executive

LEEDS

Mark Hoggart - Glass Fitter

MAYBOLE

Stephen MacNeil - Production Engineer
Stuart McFarlane - General Manager

READING

Stevan Opacic - Partitioning Sales Exec
Ann Fender - Receptionist
Matthew Kurton - Trainee SOP
Alan Skinsley - Design technician
Jason Grimsdall - Project Manager
Liz Reece - Partitioning Sales Executive
Konstantinos Pырintzos - Trainee Designer

READING (MUSCAT TEAM)

Peter Ging - Site Supervisor
Tim Snaith - Quantity Surveyor
Darren Knight - Design Manager
Jon Rothery - Site Supervisor

READING (KOWLOON TEAM)

Andrew Williams - Designer
Lois Bateman - Designer

SAS International's Project Management team is based in Reading. The team's work is varied - between them they do everything from dealing with enquiries, negotiating prices, visiting sites and most importantly, keeping the projects on track!

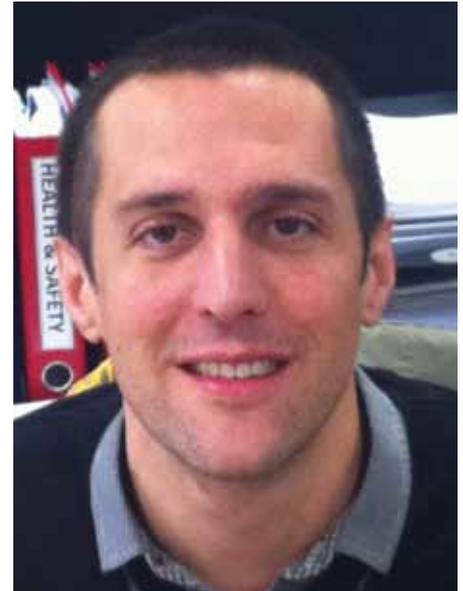
They told us about their lives, hobbies and interests, as well as their favourite food and holiday destination.

We caught up with five of them to get an insight into their daily work tasks and challenges.



Alexandra Gibbs
Trainee Estimator

- Q** What is your role within the team/what do you do on a typical working day?
- A** My role in PM is to assist the estimators. On a typical working day I log new enquiries and produce take offs and build ups.
- Q** What do you like most about working at SAS?
- A** As my first full time job naturally I was nervous, but everyone is so friendly and welcoming I felt like part of the team in no time.
- Q** What do you find most challenging about your role/job?
- A** Who knew there were so many components in a ceiling! With a bit of time, this will all become second nature.
- Q** What is your favourite food and drink?
- A** I love Italian food, spaghetti bolognese in particular and if I'm out with friends, Malibu and coke is my drink!
- Q** Where is your favourite place for a holiday?
- A** Anywhere hot and sunny! Preferably a Spanish speaking country - I love the language
- Q** What are your favourite sports or sports team?
- A** I enjoy watching show jumping at events like Olympia. I suppose this is where all of the footy fans question whether horse riding is a sport!
- Q** What are your hobbies/what do you like to do in your spare time?
- A** I love being social, and at the weekends I will always be found with friends. I also horse ride regularly.



Chris Ellingham
Logistics Manager and Buyer

- Q** What is your role within the team/what do you do on a typical working day?
- A** I purchase materials from SAS and external suppliers and get them to site both for UK projects and worldwide. My role also involves doing take-offs, hiring plant, negotiating prices, meeting with suppliers, scheduling orders, invoicing and acting as a local courier service!
- Q** What do you like most about working at SAS?
- A** I love the variety of work, completing jobs successfully and the office banter.
- Q** What do you find most challenging about your role/job?
- A** Dealing with last minute order requests and deliveries!
- Q** What is your favourite food and drink?
- A** It has to be steak, chicken and pizza. Favourite drink is dependent on day/time/occasion and physical state!
- Q** Where is your favourite place for a holiday?
- A** Australia.
- Q** What are your favourite sports or sports team?
- A** Football (Liverpool), American football (Redskins), horse racing, golf and boxing.
- Q** What are your hobbies/what do you like to do in your spare time?
- A** I organise and play in a 5-a-side football league, go to the gym, play pool and enjoy horse racing. I listen to modern metal and thrash music and regularly go to gigs and festivals.



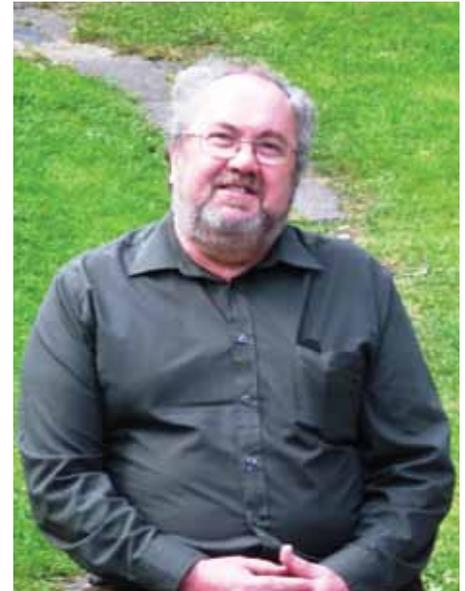
Dan Collins
Construction Manager

- Q** What is your role within the team/what do you do on a typical working day?
- A** I'm currently based in Liverpool working on the underground stations, fitting out tunnel linings and access ways. I organise the teams work areas, information and materials whilst maintaining health and safety standards, quality control, and ensuring we reach programme targets.
- Q** What do you like most about working at SAS?
- A** I like the opportunities to work on high profile projects with technical challenges, interesting design and top quality materials.
- Q** What do you find most challenging about your role/job?
- A** Working on site with an array of people can be rewarding but also challenging. I find working alongside other companies who have different priorities and opinions can be difficult.
- Q** What is your favourite food and drink?
- A** It's not very original but steak, egg and chips with a cup of tea does it for me.
- Q** Where is your favourite place for a holiday?
- A** A safari holiday in Kenya and Tanzania was amazing.
- Q** What are your favourite sports or sports team?
- A** I'm not a big follower of sports teams or personalities but I like to watch athletics and boxing when I can.
- Q** What are your hobbies/what do you like to do in your spare time?
- A** I like to go to the gym, DIY and go to restaurants with my wife and friends.



John Proctor
Project Manager

- Q** What is your role within the team/what do you do on a typical working day?
- A** Control of the job once the order has been received and the design work is complete. Visit site, check on progress, quality availability of materials and labour to ensure that we meet the programme. List any hold ups etc when the jobs don't go as planned.
- Q** What do you like most about working at SAS?
- A** It has to be the variety of the contracts.
- Q** What do you find most challenging about your role/job?
- A** Trying to keep the customer happy (no pleasing some people).
- Q** What is your favourite food and drink?
- A** Boerewors (South African sausage), mainly I drink lager but have been known to drink wine and brandy (not enough room to list all the rest).
- Q** Where is your favourite place for a holiday?
- A** Tenerife.
- Q** What are your favourite sports or sports team?
- A** Golf, although I used to play squash in my younger days.
- Q** What are your hobbies/what do you like to do in your spare time?
- A** Reading and having a braai (weather permitting), actually as long as it's not raining any time of the year goes.



Ron Churn
Senior Designer

- Q** What is your role within the team/what do you do on a typical working day?
- A** As part of the team, we are usually given responsibility for a specific project. It might be a drawing to support a sales enquiry or something more detailed for estimating or quotation. These result, of course, in layouts, details and manufacturing drawings for another successful order.
- Q** What do you like most about working at SAS?
- A** The wide range of design challenges encountered in the quite often, high profile projects undertaken.
- Q** What do you find most challenging about your role/job?
- A** As a relative newcomer to the world of ceilings, avoiding the pitfalls of trying to 're-invent the wheel'.
- Q** What is your favourite food and drink?
- A** A tricky one this, a good curry or a steak and kidney pud, decisions decisions... A decent pint of bitter will go with either.
- Q** Where is your favourite place for a holiday?
- A** I haven't found it yet
- Q** What are your favourite sports or sports team?
- A** No specific allegiances to any sport or team - a passing interest at most.
- Q** What are your hobbies/what do you like to do in your spare time?
- A** Reading, watching TV, photography, cooking, listening to music and sitting in a pub having a chat and a pint.



metal ceilings | partitioning | doors | room comfort | architectural metalwork

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