STRUCTURAL STEEL DESIGN AWARDS 2019

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Introduction

The Structural Steel Design Awards (SSDA) have recognised and rewarded many of the best examples of ambition and innovation in our built environment. Now celebrating their 51st year, the 2019 Awards, jointly sponsored by the British Constructional Steelwork Association and Trimble Solutions (UK) Ltd, continue that great tradition. This year's collection of entries once again demonstrates UK excellence in steel fabrication, design and construction.

Again, there has been a high number of quality entries and this year has seen a greater variety in the types of projects entered. Scales of entry ranged from the largest sports building projects, through prestige city and regional office buildings, to smaller educational and leisure projects and footbridges.

Twenty projects made the shortlist, from which judges presented five awards, six commendations and four merits at a gala ceremony held in London on 1 October, where it was announced that Tottenham Hotspur Football Club's new stadium was the 2019 SSDA Project of the Year.

The SSDA's cross-industry judging panel includes: chairman Chris Nash, Bill Taylor and Oliver Tyler representing the Royal Institute of British Architects; Richard Barrett representing the steelwork contracting industry; Paul Hulme representing the Institution of Civil Engineers; and Sarah Pellereau, Professor Roger Plank and Julia Ratcliffe representing the Institution of Structural Engineers.

TOTTENHAM STADIUM PHOTOS: HUFTON + CROW

STEEL EARNS ITS SPURS

THE PREMIER LEAGUE'S NEWEST STADIUM HAS A 62,000 ALL-SEATER CAPACITY, WITH A SLIDING PITCH, AND STEEL WAS CENTRAL TO ITS STRUCTURAL DESIGN

Constructed on a site that overlaps much of the old – now demolished – White Hart Lane ground's footprint, Tottenham Hotspur's new home has been designed as an iconic structure and a benchmark for future stadium design.

It is a tight atmospheric bowl, which feels and looks like a traditional, albeit very modern, football stadium with its single-tier home end.

Maximising its use, the stadium features a sliding pitch that will allow other events, such as concerts and American football matches to be held on a regular basis, without damaging the important football turf surface.

The project team used structural steelwork to form the majority of the stadium and this included the erection of five key steel features: the East Stand

Two steel tree columns support the 17,000-seat South Stand

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What the judges said:
"The new stadium is not just for football but provides a multi-function entertainment facility. The steelwork, which has been finished to a very high standard, plays an integral part in the form and architectural expression of the building."

Y-columns and transfer structure; the South Stand tree columns; the South Stand transfer structures; the North Stand cantilever structure; and the West Stand atrium structure.

"The long span nature of many areas in the new stadium are virtually unachievable in any other common construction material and the shapes and forms created using steel are both elegant and robust," says BuroHappold engineer Chris Shrubshall.

"Also, the construction programme was such that steel provided a significantly reduced erection period, to the point where some areas were changed from concrete to steel construction at a late stage."

Structural steel was used for its ability to create elegant and robust forms

Supporting level three of the East Stand, the Y-columns were among the first major pieces of structural steelwork to be erected at the new stadium.

They provide an atrium at the entrance to the stand and reduce the number of columns coming to ground level by collecting a column on each branch. They also allow the facade to be cut back into the building, producing a dramatic overhang.

The South Stand tree structures were created to provide an elegant method of transferring the 17,000-seat South Stand over the sliding pitch below. The culmination of elegant architectural design, robust structural engineering and careful fabrication, the trees are the main feature of the South Stand.

Beneath the South Stand there is a series of mega transfer trusses, spanning in three sections across the sliding pitch. These trusses have been coordinated and integrated with the architecture, so that the concourses, toilets and concessions are all as uninterrupted as possible.

The North Stand cantilevers 10m over the tier below. This is formed using box-section rakers. The load is delivered into the reinforced concrete cores, using pre-stressed high strength bars. Significant dynamic analysis has been carried out to justify the performance of the stand. There are significant service penetrations with the North Stand, which allow the distribution of services around the space below.

Meanwhile, the West Stand is supported on a series of slender steel box-section columns, which are 21m tall. These columns create a spectacular atrium space below.

Award and Project of the Year: Tottenham Hotspur Football Club, New Stadium
Architect: Populous
Structural engineers: BuroHappold Engineering, schlaich bergermann partner
Steelwork contractor: Severfield
Main contractor: Mace
Client: Tottenham Hotspur Football Club

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RETAIL CENTRE BUYS INTO STEEL DESIGN

A CURVING STEEL STRUCTURE, SPANNING BETWEEN TWO RESTORED VICTORIAN BUILDINGS, FORMS THE ROOF OF LONDON'S LATEST WORLD-CLASS RETAIL DESTINATION

Exposed steelwork emphasises the complex geometry of the roof structure

What the judges said:
"The new exposed steel is extremely well integrated and carefully detailed to be in keeping with the original structure, strengthening and extending it to suit its new purpose"

The King's Cross redevelopment programme, one of Europe's largest regeneration schemes, has converted a run-down industrial site in north London into a vibrant neighbourhood.

One of the centrepieces is Coal Drops Yard, a recently opened high-end retail outlet housed in two Victorian buildings, built in the 1850s for receiving and sorting coal as it arrived in London by train.

The buildings, approximately 150m long and 120m long respectively, sit side-by-side while splaying outwards in a southerly direction. A new steel-framed roof straddles the area between the two structures, which is 30m wide at the northern end, creating an impressive piece de resistance.

The roof structure is approximately 75m long on one side and 65m long on the other. It curves inwards, from the south and north ends, and then rises up in the middle to a maximum height of 25m.

Two "ribbon" trusses, sat atop each building, help form the undulating

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Award: Coal Drops Yard, London
Architect: Heatherwick Studio
Structural engineer: Arup
Steelwork contractor: Severfield
Main contractor: BAM Construction
Client: King's Cross Central Limited Partnership

shape of the roof structure. The trusses are fabricated from 610mm circular hollow sections (CHS) with 508mm CHS verticals and 219mm CHS bracings.

"To create the complex geometry of the sweeping roof structure, steel was the only choice and CHS sections were used as they could be bent to form the curved ribbon trusses," says Arup senior engineer Simon Bateman.

The trusses are each created from four individual segments (eight in total), each one bespoke, due to the curvature of the roof and the splay of the buildings.

Above the trusses the new roof is primarily supported by a compression-tension system, spanning the distance between the buildings.

This is supported on new steelwork at each end within the two Coal Drops buildings. The compression aspect of the system is made up of four fabricated box "giraffe" girders – so-called as they look like giraffe necks in 2D elevation.

The "giraffe" girders, which span 50m from building to building, are 1,000mm deep x 600mm wide, with 40mm flanges.

The tension is taken through a single tie, made from a series of plated steel elements, that is connected to the bases of the "giraffe" girders.

At the middle point of the roof, there is a large kink where the two sides nearly meet: the "kissing point". As there are huge bending moments generated in the steelwork in this area, a large 100 tonne steel node is positioned at this point.

Meanwhile, the roof steelwork is doing two jobs, as well as spanning the void between the existing buildings, it also supports a new column-free upper level of the development.

Two ribbon trusses help create the undulating form of the roof system

Royal Academy of Music

Several innovative structural steelwork solutions were used in the redevelopment of the Royal Academy of Music's Grade II-listed buildings

Commendation: Royal Academy of Music, London
Architect: Ian Ritchie Architects
Structural engineer: WSP
Main contractor: Geoffrey Osborne
Client: Royal Academy of Music

The works, carried out on a site surrounded by operational buildings, included the replacement of the existing theatre superstructure, the addition of new cantilevered balcony seating, the introduction of a flytower, with main plant room above, an enlarged orchestra pit, insertion of new vertical circulation routes, and a box-in-box rooftop recital hall with its own glazed foyer.

A feature auditorium ceiling was introduced to provide a visual focus and to maximise the acoustic volume of the theatre. This ceiling is created with a system of downstand secondary, tertiary and quaternary beams faceted on plan and clad in curved timber.

Above the redeveloped theatre, the opportunity was taken to add a new, partially exposed, steel-framed 100-seat flexible recital hall, entirely isolated acoustically – slab and walls – from the surrounding structure.

A SLENDER STEEL THAMES CROSSING

STEELWORK PROVIDED THE SOLUTION FOR THE LATEST RIVER THAMES BRIDGE, WHICH HAD TO BE CONSTRUCTED OFFSITE AND ERECTED FROM A BARGE DUE TO LIMITED ACCESS

Steelwork's structural strength made it the only option for a very slender bridge

A new footbridge at Taplow in Buckinghamshire is the latest crossing of England's second longest river, providing a pedestrian link in the Thames Path and connecting a riverside development with nearby Maidenhead.

Spanning 40m over the River Thames, the shallow arch form of the design is inspired by Brunel's nearby Maidenhead Bridge and is echoed in the slender steel box structure.

Fabricated triangular-section box girders form the twin structural arches that support the deck, while slender steel hangers complete the composition and ensure the structure is lightweight and transparent in river views.

"The site for the bridge presented numerous access challenges," explains Clare Taylor, project manager with engineer COWI. "The only viable access route for construction was the river and so it was important to design a bridge that could be constructed easily and safely from the water without compromising the bridge aesthetics within this picturesque setting."

This challenge was solved by using steel as the primary material, which allowed the bridge to be fabricated offsite in one piece.

Another important consideration was steelwork's high structural strength and stiffness. It provided the only possible material to realise the architect's vision of a very slender bridge for this site.

The steel structure was designed with structural efficiency in mind but

TAPLOW PHOTOS: ©ANTHONY PREVOST; CHISWICK PARK: ©JILL TATE

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Outward-leaning arches support a composite steel-concrete deck

What the judges said:
"The steelwork is beautifully detailed, and trial assembly helped ensure trouble-free installation"

allowing a clear architectural identity. It consists of three key features: the arch, deck and flat plate hangers.

The arches are triangular in cross section and lean outwards to produce a dramatic visual effect, opening up views of the river and landscape.

"The arches support a remarkably slender composite steel-concrete deck formed by a steel tray comprising the edge beams and bottom plate, which was filled with in-situ concrete after the bridge was installed," says Taylor.

"Transverse stiffeners are revealed below and extend outwards to form the hangers. This composite construction results in improved structural behaviour, particularly from the point of view of dynamic response and acoustics, and it also facilitated easy construction."

Offsite fabrication by S H Structures was a key factor. It enabled a high-quality finish to be achieved and allowed for a trial assembly, ensuring a more efficient onsite build.

"Installation was the most significant challenge with limited access to the site. This meant a conventional crane could not be used and so the bridge had to be delivered by river," says S H Structures director Tim Burton.

The structure was transported in three parts by road to a laydown and assembly yard a short distance downstream of the site. The bridge was assembled on temporary works, before the entire steel structure was lifted onto a pontoon, floated upriver and installed using hydraulic jacks in a one-day operation.

Award: Taplow Riverside Footbridge
Architect: Knight Architects
Structural engineer: COWI
Steelwork contractor: S H Structures
Main contractor: Land & Water
Client: Berkeley Group

Chiswick Park Footbridge

Numerous challenges were overcome during the design stage for the Chiswick Park Footbridge – a new three-span arched structure that connects a business park with Chiswick Park Underground Station

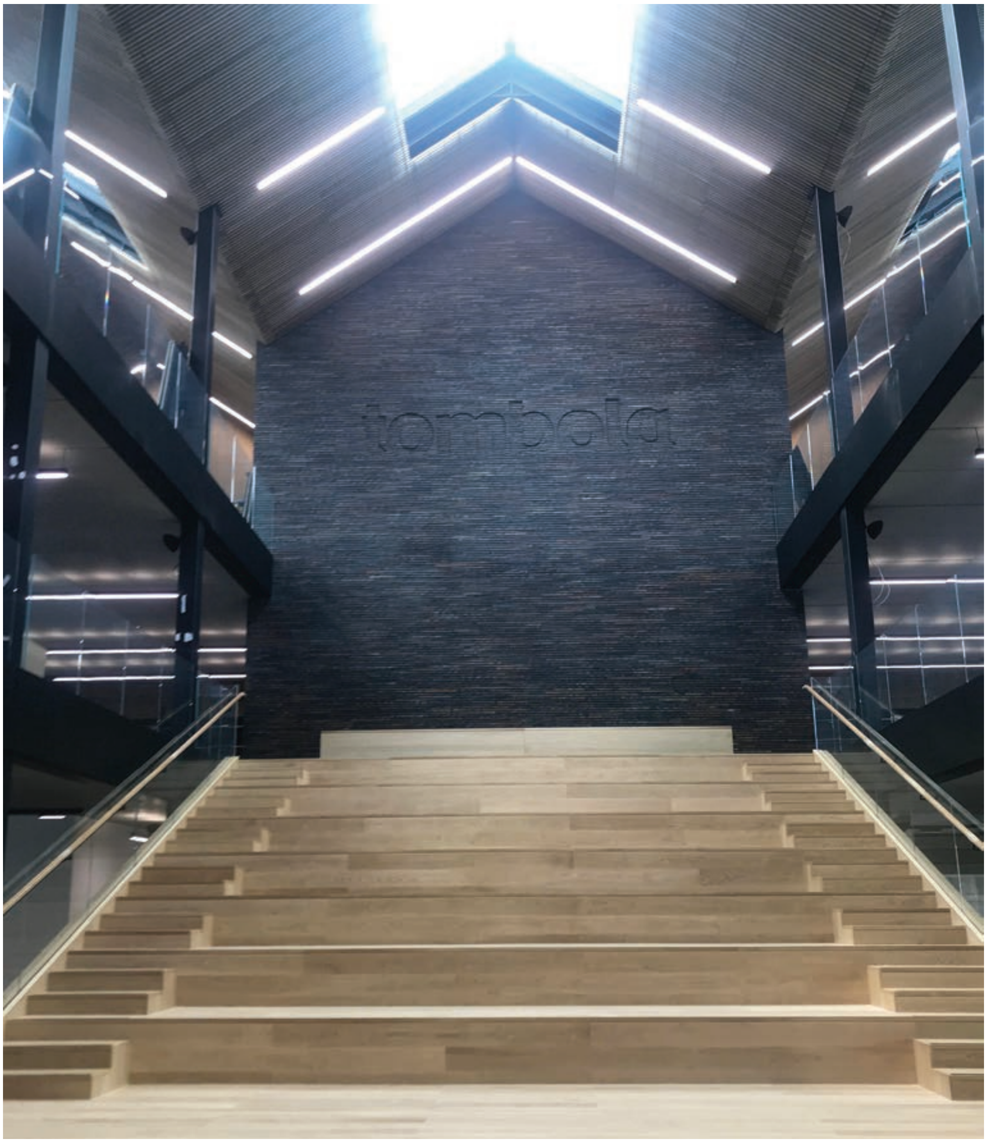
Commendation: Chiswick Park Footbridge
Architect: Useful Studio
Structural engineer: Expedition Engineering
Steelwork contractor: Severfield
Main contractor: Lendlease
Client: Blackstone

The designers had to incorporate a dominant 45m-long span over Network Rail Overground lines with the necessary constraints, as well as allowing for a restricted landing site at one end that includes a 4.5m drop in level. A minimum road height clearance for double-decker buses had to be included in the central span. Added to the above, the bridge had to curve along its entire length.

A lightweight solution was needed to ensure that the 45m-long Network Rail span could be lifted into place from nearby Chiswick Park.

The arch was designed as a network arch (close-centred crossed cables), producing a highly efficient structure that acts as a stiff mesh to control pedestrian dynamic effects and enables the bridge to be slender.

This is only the second network arch footbridge constructed in Europe.



STEEL AIDS STAFF RETENTION

EXPOSED STEELWORK AND AESTHETICALLY DETAILED CONNECTIONS ARE THE ORDER OF THE DAY FOR AN IT COMPANY'S MULTI-MILLION-POUND HEADQUARTERS

What the judges said
"Through simple yet sophisticated design, plus rigorous attention to detail, this headquarters building exhibits exceptional quality and value"

Accommodating nearly 500 employees, the new Tombola headquarters in Sunderland offers 2,300 sq m of floor space and features an exposed steel frame, along with an integrated heating and cooling system that has been cast into the exposed concrete floor slabs.

Marc Horn, managing director of structural engineer s h e d, says the exposed steelwork has been aesthetically detailed to a standard rarely seen on commercial projects.

"Most commercial schemes have all their steelwork connections hidden in ceilings or floor zones. The majority of the steelwork at Tombola is visible and had to enhance all the other parts of the design," he explains.

"By creating this superb new building, the company will be better placed to retain its talent, as the impact of this is often underestimated. By keeping jobs and therefore associated spending power within our local economy, the effects go far beyond just Tombola employees."

The IT company's new glazed headquarters boasts modern open-plan offices throughout its uppermost first and second floors, while a full-height centrally-positioned atrium will flood the inner parts of the structure with natural light.

The ground floor has a reception area, bistro and gym for employees, with bleacher-style stairs leading to the open-plan upper floors.

The building also boasts a diverse range of informal training and

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presentation suites with the latest AV/video conferencing technology.

The three-storey structure's steel frame is braced for stability, but also incorporates moment frames, which create the building's dramatic overhang and cantilevers along its eastern facade.

The office floorplates are long-span areas with exposed concrete soffits providing radiant heating and cooling. In order to allow the floors to appear to float and the fenestration to span fully to the soffits, all supporting columns are detailed as box sections with plates supporting the slabs above.

The building's main columns are also box sections. Horn says this is to keep their size to a minimum and create the sleek lines of the building that continue from the horizontal to the vertical.

A series of rectangular hollow section (RHS) edge floor beams are arranged to support the brickwork facade, providing a solution that is efficient in terms of minimising the overall number of steel members.

The building's audio/visual and fire alarm systems are hidden within the hollow section structure, which is used as a containment system to keep the sleek and uninterrupted finish.

Topping the structure, the roof appears to float, which is made possible by using another moment frame. All the steel roof structure is within a shallow construction zone, with purlins placed inside the depth of the column section rafters.

"The building could not have been delivered in its amazing form without using a steel-framed superstructure, as the material allowed us to achieve the required long spans and open spaces," says Brims Construction director Richard Wood.

Award: Tombola HQ, Sunderland
Architect: Ryder Architecture
Structural engineer: s h e d
Main contractor: Brims Construction
Client: Tombola

The steel frame is braced for stability and incorporates moment frames

Fen Court

Offering 39,000 sq m of floorspace, the 15-storey Fen Court is one of the latest additions to the City of London's skyline

Commendation:
Fen Court, London
Architect: Eric Parry Architects
Structural engineer: Arup
Steelwork contractor:
William Hare
Main contractor:
Sir Robert McAlpine
Client: Generali Real Estate

Featuring a distinctive crown-shaped design, Fen Court offers office space, a rooftop restaurant and London's first publicly accessible roof garden.

The basement was designed to keep a high-street bank, occupying part of the site, in operation without disrupting services to customers.

The challenging build of the bank involved a top-down construction sequence for a small portion of the site, with plunge columns driven into the ground and a small area of the basement slab cast. This allowed construction of this smaller steel frame at the same time as the excavation of the three-level basement was taking place.

With excavation complete, and the two cores constructed, William Hare began a traditional bottom-up erection process of the main steel frame.

STEEL SERVES UP MOVABLE ROOF

THIS YEAR, THE HOME OF LAWN TENNIS UNVEILED A NEW RETRACTABLE STEEL ROOF, ALLOWING UNINTERRUPTED PLAY IRRESPECTIVE OF THE WEATHER, ON ITS SECOND MOST IMPORTANT COURT

The centrepiece of the Wimbledon No.1 Court redevelopment scheme, which has increased the capacity of the arena, is a new retractable roof similar in design to the one spanning Centre Court, an SSDA winner in 2009.

The project, adapting the original arena which opened in 1997, presented unique logistical challenges, as nothing could get in the way of the all-important annual Wimbledon fortnight.

Consequently, the project was completed over three phases, with two breaks to allow The Championships in 2017 and 2018 to take place. The final steel roof elements were installed last spring, allowing the programme to be completed a month before the 2019 Championship.

The concertina design of the roof incorporates 11 steel trusses

The new roof is based on a concertina design with two main sections that meet in the middle. The structure covers an area of about 5,500 sq m and can be deployed or retracted in around eight minutes.

It consists of 11 steel trusses, each spanning 75m across the top of the court and with an overall height of 6.5m.

Ten of the trusses are identical prismatic sections, but the most southerly is rectangular and slightly heavier, at 65 instead of 60 tonnes.

"Ordinarily five trusses are parked at the north end and six at the south, and when deployed they all move inwards to cover the court," explains Thornton Tomasetti associate director Michael Roberts.

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The retractable roof moves on rails fixed to the court's new superstructure

What the judges said:
"This extraordinarily complex work was carried out over three seasons with minimum public awareness. Large movable steel trusses installed to exacting tolerances over the existing building provide a roof that can shelter a match from rain within minutes."

"However, to maximise the amount of sunlight on the grass, all of the trusses can be moved to the north end with the 11th rectangular truss being the last in line. Having no fixed restraining arms attached to the surrounding fixed roof, this truss needed to be a different shape."

Allowing the roof to move, the ends of each truss are supported on a wheeled bogie, which moves along rails fixed to the new superstructure of No.1 Court. This superstructure includes five more trusses that surround the arena, with two of them, east and west, primarily supporting the retractable roof.

The east and west trusses are both 80m long and weigh 490 and 555 tonnes respectively.

Stability and support for the trusses is provided by eight existing concrete cores and three jumbo 1,083mm-diameter CHS columns, which were threaded through the stands and founded on the concrete substructure.

Two of these large columns are positioned at either end of the east truss, with the third supporting one end of the west truss. A fourth jumbo column could not be installed as there are ground level water tanks in the area where this section would have been founded. Instead a 40m-long x 11.5m-deep north-west truss had to be installed, acting as a bridge over the obstructions and helping to support the other end of the west truss.

Award: Wimbledon No.1 Court
Architect: KSS
Structural engineer: Thornton Tomasetti
Steelwork contractor: Severfield
Main contractor: Sir Robert McAlpine
Client: The All England Lawn Tennis Club

Ingenuity House

Topping out at five storeys, Ingenuity House is the new regional headquarters for Interserve

Commendation: Ingenuity House, Birmingham
Architect: Sheppard Robson
Structural engineer: Arup
Steelwork contractor: Billington Structures
Main contractor: Interserve Construction
Client: Interserve Construction

Located next to Birmingham International Airport, the 12,000 sq m, energy-efficient building will bring together approximately 1,200 staff, who are now spread across five offices.

The architectural form presented challenges, each requiring creative solutions. These include the stepped floorplates, the column-free entrance and the 38m-span atrium roof.

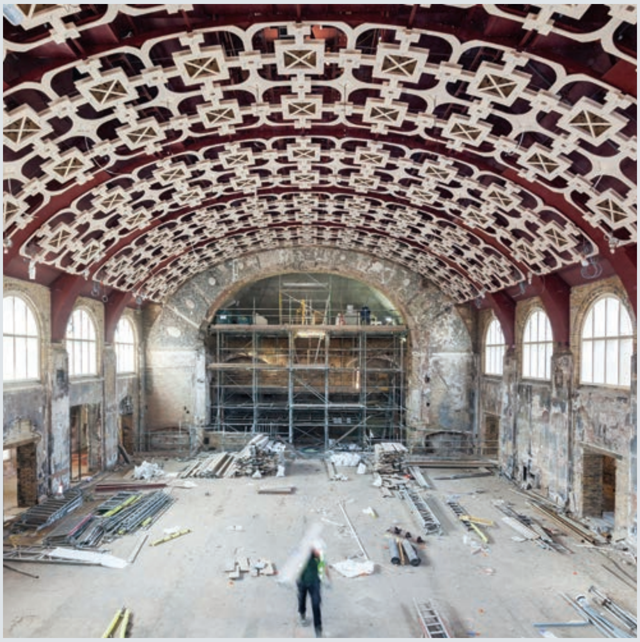
A series of raking columns with external cantilevers and internal transfer beams, supporting stepped vertical columns, were found to provide the optimal balance of structural efficiency and spatial planning. While being primarily a bespoke building for Interserve, the flexible design does allow for future subdivision.

A total of 1,710 tonnes of structural steel were supplied and erected by steelwork contractor Billington Structures, including a 30 tonne roof level truss, supporting the roof and fourth floor above the feature recessed entrance area.

Battersea Arts Centre

A 12-year programme to extend and refurbish the Battersea Arts Centre includes a new steel-framed roof spanning the facility's Grand Hall and replacing a structure that was destroyed in a fire four years ago

Commendation: Battersea Arts Centre
Architect: Haworth Tompkins
Structural engineer: Heyne Tillett Steel
Main contractor: 8Build
Client: Battersea Arts Centre



A steel solution was adopted as the material has a high strength, which allows for smaller lightweight sections to be used, making it a versatile material choice, especially for long span structures such as roofs.

For this project, a series of slender members were used to form roof trusses, creating a clear 17.5m span across the hall.

The trusses are 10.5m high and 900mm wide and were installed through removable sections in the temporary scaffold roof.

The project also includes other steelwork elements such as demountable side galleries, which required slender steel beams hidden within a new acoustic floor build-up, modifications to the balcony to support an organ, rebuilt dressing rooms and a new stage roof.

Neuron Pod

Known as the Neuron Pod, this steel-framed structure was designed for the client as a multi-functional space for events and an education zone

Commendation: Neuron Pod, London
Architect: aLL Design
Structural engineer: AKT II
Main contractor: Total Construction
Client: Queen Mary University of London

NEURON POD PHOTO: ©JONATHAN COLE

Accessed via bridge from an existing building on the Queen Mary University of London campus, this standalone structure has been described as an art installation.

Created from weathering steel, the Pod consists of an external structural skin, stiffened by internal steel ribs. These internal ribs run in both directions to provide stiffness and rigidity to the structural skin. Inspired by a zeppelin shape, both in plan and elevations, it is supported by three legs.

Constructed using a process similar to the construction of a ship's hull, the structure has been designed and engineered by AKT II as an 8mm developable external plate, welded on an internal series of vertical and longitudinal steel ribs. The materials used provide a lasting durability, while retaining the aesthetic quality of the architectural vision.

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G W Annenberg Performing Arts Centre

Merit: G W Annenberg Performing Arts Centre
Architect: Studio Seilern Architects
Structural engineer: PBA, now part of Stantec
Steelwork contractor: Advanced Fabrications Poyle
Main contractor: Beard Construction
Client: Wellington College

The G W Annenberg Performing Arts Centre is a new theatre at Wellington College, one of the UK's leading independent schools. With a total capacity for 1,200 people, it is an unusual circular theatre, built into a gently sloping site.

Inside, the 33m-diameter roof spans over the auditorium, where the curved plan of the building complements the internal arrangement of seating and structure around the focus of the stage.

High-level walkways within the roof not only give access to the lighting galleries but also form the backbone of the roof support structure, formed by a rectilinear arrangement of cambered Warren/Vierendeel hybrid trusses.

Innovative and extensive structural transfer systems were developed throughout to enable the architect's vision for this complex building. However, the overall complexity did not translate into complex steel fabrication details, as the building was designed to be a collection of simpler structures. This was achieved in part by keeping the perimeter column spacing and internal floor spans to a minimum, thereby reducing the overall load applied to each transfer beam.

Telford Central Footbridges

Merit: Telford Central Footbridges
Architect: Nicoll Russell Studios
Structural engineer: Jacobs
Steelwork contractor: S H Structures
Main contractor: Balfour Beatty
Client: Telford & Wrekin Council

Two steel-arched structures, with an underslung suspended deck connected by a central hub, provide a new and improved link between Telford railway station and the town centre.

Steel was identified as the structural material early in the design stage, due to its efficient span-to-weight ratio and other benefits including safer, cost-effective offsite construction techniques.

The selected cranked alignment, parallel to the existing link, enabled the new bridge to be built while maintaining the use of the existing structure, thereby causing the minimum amount of disruption to its users.

The new structures are both based on a single-span lenticular space truss roof, fabricated from steel circular hollow sections. The over-railway structure is 27m long and the larger structure spanning the highway is 90m long.

The steel decks are supported from the truss system on hangers. For the larger bridge, the deck also acts together with the roof truss and raking end members to create a tied arch supported on piled concrete abutments, faced with blockwork.

A brickwork-clad steel structure connects the two bridges.

The Macallan Distillery

Merit: The Macallan Distillery
Architect: Rogers Stirk Harbour + Partners
Structural engineer: Arup
Steelwork contractor: S H Structures
Main contractor: Robertson Construction
Client: The Macallan

The Macallan Distillery and Visitor Experience was designed to be a unique structure that would reveal the production processes of the single malt Scotch whisky distillery as well as welcome visitors, while remaining sensitive to the rural setting in Speyside.

Structural steelwork is an integral part of the building, as ring beams and columns support the timber green roof, while curved steel process tables hold up the copper stills that are used in the whisky distilling process.

The roof design is based around a repetitive use of a dome form. The primary geometry is formed from a timber grillage of downstand beams at 3m centres.

This undulating grillage is supported by steel portal frames. Each timber dome, spanning a clear distance of 27m, lands on to a steel ring beam, which in turn is supported on inclined V-columns that spring from concrete buttresses.

The initial design for the roof would have seen the erection team bolting the relevant sections together on site. However, at the suggestion of S H Structures, this was changed to site welding the nodes, as this was the best way of meeting the tight tolerance requirements.

Greatham Creek Seal Hide

GREATHAM CREEK PHOTO: ©VICKY MATTHERS

Merit: Greatham Creek Seal Hide, Middlesbrough
Architect: Abstract Machine (Leeds Beckett University)
Structural engineer: BMMJV (Bam Nuttall/Mott MacDonald Joint Venture)
Steelwork contractor: S H Structures
Main contractor: BMMJV (Bam Nuttall/Mott MacDonald Joint Venture)
Client: Environment Agency

In an area of Teesside renowned for its wildlife, a popular destination for birdwatchers and people wishing to photograph seals, an observation hide has been constructed during the building of new flood embankments.

Overlooking the sea at Greatham Creek, the steel-framed hide replaces an old timber structure and is a legacy structure for those visiting the area for years to come.

To satisfy the need for a lightweight material and to achieve the required durability, corrosion-resistant weathering steel was used as it resolved the need for repainting and provided a suitable colour.

Funding was secured through engagement with Royal Society for the Protection of Birds (RSPB) and Teesside Environmental Trust, with a contribution from the Landfill Communities Fund.

Other finalists:
- 160 Old Street, London
- Project Mint at The O2
- Aga Khan Centre, London
- Ely Southern Bypass
- Kettner's Townhouse & Soho House, Greek Street, London