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STEEL AWARDS 2024

WINNERS & ENTRIES

SOUTHERN AFRICAN INSTITUTE OF STEEL CONSTRUCTION

Strength & Beyond UNICA IRON & STEEL

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A Word from the SAISC CEO

AMANUEL GEBREMESKEL

As we reflect on the past year, it is inspiring to see how the steel industry continues to evolve and overcome challenges. Our commitment to supporting the industry and highlighting its achievements remains steadfast. The resilience, innovation, and expertise of everyone involved in this sector are remarkable, and we are proud to be a part of such a dynamic community.

This year's **Steel Awards** judging process was particularly intense and filled with surprises. We began by reviewing nominations to gain a broad perspective of the work completed over the past year. While the number of nominations were consistent with previous years, we noticed a clear shift towards mining projects.

One of the most notable aspects of the mining nominations was the sheer complexity of the projects. Many of our fabricators have advanced to the point where they are not only producing structural steel but also manufacturing key components of the machinery that the steel supports. This development has given them a significant competitive advantage, enabling them to stand out on the global stage by moving further downstream in the production process.

Our project visits are always exciting, but this year was particularly special. For many of us, it was our first-ever visit to the Pope's South African church and home. Another first was the spectacular 3D show at the planetarium on the Nelson Mandela University campus, which did not even require filters. The novelty, size, and complexity of these projects were truly astounding, highlighting the incredible skill of everyone involved.

The level of coordination between design professionals, fabricators, and erectors was exceptional, and the project management was nothing short of extraordinary. We tip our hats to the quality of the steelwork and the innovative techniques used during the erection process.

Judging this year was tough, given the number of impressive nominations. South Africa's steel industry remains world-class, and we can confidently say that with steel, anything can be designed and built in this country and beyond its borders.

Lastly, we would like to extend our heartfelt gratitude to our sponsors for their unwavering support:

UNICA Iron and Steel – Main Sponsor

Bolt and Engineering Distributors (Group) – Pan African Trailblazer

BSI Steel – Factory and Warehouse

ASTPM – Tubular

Macsteel – Metal Cladding

NJR Steel – Light Steel Frame Buildings

Stewarts & Lloyds – Innovation and Sustainability

ArcelorMittal South Africa – Photobooth Sponsor

Your contributions are vital in making these events and achievements possible. Together, we continue to drive excellence in the steel industry.

TAKING SECONDARY STEEL MANUFACTURING TO NEW HEIGHTS

As proud pioneers of secondary steel manufacturing, Unica Iron and Steel is successfully forging a path in South Africa.

Established in 2006, Unica is the first in South Africa to feature a fully integrated mini steel plant that produces light to medium structural steel. "We are growing with the pace of demand and our market share increases daily. We have recently installed a new melting furnace to increase our capacity from 120 000 tonnes per annum (tpa) to 240 000 tpa, " says Mohammed Qasim, Managing Director of Unica.

Alongside the melting furnace, other exciting projects are in the pipeline for the company. In an effort to optimise its production capacity, Unica added argon oxygen decarburisation (AOD) and two oxygen plants to its production processes. This will allow the company to further improve its quality and supply different market sectors. AOD is a chemical process where oxygen is introduced in a vessel to create an exothermic reaction, hence Unica installed oxygen plants alongside it. As a result, the plant produces oxygen and nitrogen necessary for decarburising and refining the steel.

According to Mr Qasim, "We have invested over R450 million since the COVID-19 pandemic and are continuing to do so. Once all the expansions are completed, we may be at the level of R550 million."

The company uses processed scrap as a raw material to produce steel using an induction furnace, in a process known as secondary steel making. The resultant billets are then processed in the rolling mills to produce light to medium steel sections such as angle iron, round bars and window sections. "Focussing on this niche, Unica has managed to grow its share substantially and has become a benchmark operation for many who have followed its success," says Mr Qasim.

Indeed Unica has much to celebrate and its success is partly down to the 900 people it employs from the rural Hammanskraal area in Gauteng Province. The workforce operates in the rolling mills to produce over 100 different sections from billets created in an induction furnace and castes in a continuous caster. As Unica is a first-of-its-kind operation in South Africa, most of its staff had no first-hand experience in the demands of secondary steel manufacturing. To address this, the company's HR department provides on-the-job training. "One of the reasons that Unica is growing and successfully capturing the market is due to our dedicated, motivated and well-trained workforce," Mr Qasim explains. "Our experienced executive, senior, middle and junior management, in particular, are key reasons for our prosperity." Over the years, Unica has consistently improved staff conditions and is now the highest paying employer in the country. Furthermore, it distributes annual bonuses, long service awards and production incentives, making Unica the workplace of choice.

According to Mr Qasim, "When the plant was established, it was able to produce only 12 000 tpa, whereas in the space of 14 years, it has already reached the levels of 150 000 tpa and is expanding further. So we are hoping to reach up to 240 000 tp by Q2 in 2025."

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A division of the UNICA GROUP

Strength & Beyond
UNICA IRON & STEEL
Manufacturers of Light & Medium Structural Steel

Meet Our Judges – Steel Awards 2024

Each year, a dedicated team of professionals invests significant time and expertise in evaluating every nominated project. The SAISC Steel Awards judging process is a rigorous one, incorporating both quantitative and qualitative assessments over a five-month period.

AMANUEL GEBREMESKEL
CEO, SAISC

MO PHALA
DIRECTOR,
ARC ARCHITECTS

EMMA LOUBSER
STRUCTURAL
ENGINEER

FRANCO MODINI
TUBE PRODUCT SPECIALIST,
MACSTEEL SERVICE
CENTRES SOUTH AFRICA

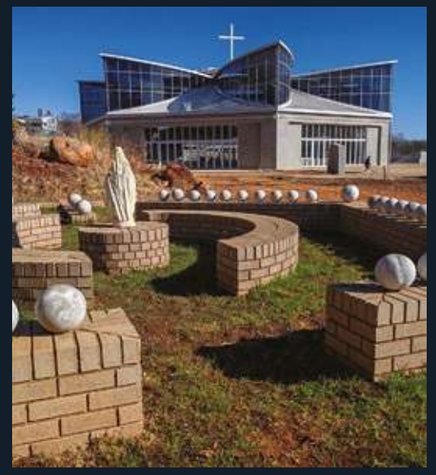
The SAISC would like to express its heartfelt gratitude to the **Steel Awards 2024** judging panel for their dedication and invaluable role in recognizing and rewarding excellence within our industry. Their commitment ensures that the best in steel design and construction is highlighted and celebrated.

SPENCER ERLING
EXPERT STEEL AWARDS
CONSULTANT, RETIRED
SAISC DIRECTOR

DENNIS WHITE
DIRECTOR, SAMCRA

DENISE SHERMAN
JUDGING / NOMINATIONS
LEAD

JOHN DUNCAN
CONSULTING, STRUCTURAL
ENGINEERING



Blazing a trail of innovation and excellence

Bolt and Engineering Distributors Group (B.E.D.) is proud to announce its Trailblazer sponsorship of the 2024 Southern African Institute of Steel Construction (SAISC) Steel Awards. This reflects B.E.D.'s commitment to innovation, quality and excellence - and its values of working with the best suppliers and staff to deliver the latest products and solutions to steel customers across many different sectors.

ICONIC TRAILBLAZERS

B.E.D. is a leading provider of high-quality products and services in sectors ranging from mining to general engineering, fabrication and agriculture, supplying welding equipment, fasteners and bearings to protective personal equipment (PPE) and more.

"We have been closely linked to the steel industry since our inception in 1983, and our Trailblazer sponsorship underscores our commitment to fostering innovation in the industry. The 'trailblazer' concept really resonates with us, echoing inspirational trailblazers such as Nelson Mandela and Rassie Erasmus who made lasting impacts in our country.

We are proud to emulate these icons by blazing new trails with our innovative products and solutions, helping our customers to overcome their industrial challenges," says Mike Giltrow, CEO of Bolt and Engineering Distributors Group (B.E.D.).

SUPPORTING MEGAPROJECTS

B.E.D.'s range of products allow it to operate as a 'one-stop shop', supplying to a variety of steel-related projects, including megaprojects such as enormous warehouses, mine conveyors and commercial sector structures, and ensuring their structural integrity and safety.

"We are very grateful for the opportunity to have supplied previous and current Steel Awards projects. Our expertise in logistics, inventory management and product knowledge allows for seamless delivery and after-sales support," Giltrow comments.

B.E.D.'s export division also extends its reach to across the continent, contributing to key infrastructure developments: "We have exported to Sub-Saharan Africa for over 15 years now. Aligning ourselves with local in-country partners, we ensure that our high standards of quality and customer service are maintained, irrespective of the project location," Giltrow adds.

CONTINUALLY INNOVATING

With an ethos and tagline of 'it's our business to know your business', B.E.D. prides itself on understanding the challenges of contemporary steel projects, from industrial conveyors to high-precision architectural structures. The company's adaptability has been a key factor in its continued success.

"We continually innovate, evolving our premium and medium-tier product offerings to meet the changing needs of industry. For instance, advancements in battery technology enable us to offer more efficient, portable power tools and welding equipment for construction sites, eliminating the need for generators and complex cabling," Giltrow points out. B.E.D. is also undertaking initiatives such as welding training and state-of-the-art calibration.

Furthermore, B.E.D.'s partnerships with leading global brands such as Fronius, SKF and Milwaukee ensure that the company remains at the forefront of technological advancements. This enables its customers to complete projects with precision and efficiency, all while maintaining the highest standards of safety and quality.

BLAZING A FUTURE TRAIL

"This Trailblazer sponsorship demonstrates B.E.D.'s dedication to fostering progress in the sector. We look forward to continuing our partnership with SAISC, not only through sponsorship, but also through product training and skills development - empowering the next generation of steel trailblazers," Giltrow concludes.

Viva Engineering - Delivering 11 Heavy-Duty Belt Feeders for the Centinela Copper Mine Project in Chile

VIVA ENGINEERING

Viva Engineering has installed a 615-panel PV Solar System that powers their manufacturing during loadshedding and at night Committed to reducing environmental impact, they use innovative engineering to drive sustainable operations and help clients achieve their own sustainability goals for a greener future

jr@vivaeng.co.za www.vivaeng.co.za +27 (0) 11 392 3926

Overall Winner
Virta - 11 off Belt Feeders for a Copper Mining Project in Chile

The Centinela Copper Project in Chile involved the fabrication and delivery of 11 massive steel belt feeders, each weighing 60 to 70 tons. The extensive use of structural steel in this project was truly impressive, showcasing Viva Engineering's exceptional capabilities in handling complex industrial challenges.

PROJECT TEAM

Nominator: Viva Engineering
Main Contractor: VIRTA USA
Steelwork Contractor: Viva Engineering
Architect: VIRTA USA
Structural Engineer: VIRTA USA
Steel Merchants: Allied Steelrode / Macsteel / Stewarts & Lloyds
Steel Detailer: Viva Engineering

The belt feeders were engineered to withstand extreme seismic loads and rigorous transport requirements. The structural components, including built-up welded beams and plates up to 50 millimeters thick, were carefully fabricated to ensure the feeders' structural integrity and durability.

The project's success was attributed to the team's meticulous attention to detail in the design and modeling process. They had to model every mechanical component, from the conveyor belts to the pulleys and idler rollers, to ensure accurate weight calculations for the transport and installation of these massive steel structures.

The team's proactive approach to material sampling and testing was also crucial. They worked closely with steel suppliers and the Chilean inspector to ensure that all the materials used in the fabrication process met the stringent requirements set by the client. This attention to detail was vital in securing the project's approval and timely delivery.

Furthermore, the project's tight timeline, which was reduced from 12 months to just 6 months, showcased Viva Engineering's expertise in steel fabrication and project management. Through meticulous planning and weekly coordination meetings, the team was able to deliver the 11 belt feeders on time, demonstrating their capabilities as a global market leader in the steel fabrication industry.

The successful completion of the Centinela copper project has solidified Viva Engineering's reputation as a trusted partner in large-scale industrial projects that require the extensive use of structural steel. The company's commitment to innovation, quality, and client satisfaction has been a driving force behind its continued success in the global market.

Virta – 11 Alimentadores de Correas para el Proyecto Centinela en Chile, América del Sur

El proyecto de cobre Centinela en Chile involucró la fabricación y entrega de 11 alimentadores de correas de gran tonelaje en acero estructural, cada uno con un peso de entre 60 y 70 toneladas. El extenso uso de acero estructural en este proyecto fue realmente impresionante, mostrando las excepcionales capacidades de Viva Engineering para manejar desafíos industriales complejos.

Los alimentadores de banda fueron diseñados para soportar cargas sísmicas extremas y requisitos de transporte rigurosos. Los componentes estructurales, que incluían vigas y placas soldadas de hasta 50 milímetros de espesor fueron cuidadosamente fabricadas para garantizar la integridad estructural y durabilidad de los alimentadores.

El éxito del proyecto se atribuyó a la meticulosa atención del equipo a los detalles en el proceso de diseño y modelado. Tuvieron que modelar cada componente mecánico, desde las correas transportadoras hasta las poleas y los polines, para asegurar cálculos precisos del peso para el transporte y el montaje de estas estructuras de acero de gran tonelaje.

El enfoque proactivo del equipo en la muestreo y ensayo de materiales también fue crucial. Trabajaron en estrecha colaboración con laboratorios chilenos certificadores de acero y el inspector chileno para asegurarse de que todos los materiales utilizados en el proceso de fabricación cumplieran con los estrictos requisitos establecidos por el cliente y las normas chilenas. Esta atención al detalle fue vital para asegurar la aprobación del proyecto y la entrega a tiempo.

Además, el ajustado cronograma del proyecto, que se redujo de 12 meses a solo 6, destacando la experiencia de Viva Engineering en la fabricación de acero y gestión de proyectos. A través de una planificación meticulosa y reuniones de coordinación semanales, el equipo logró entregar los 11 alimentadores de correa a tiempo, demostrando sus capacidades como líder del mercado global en la industria de la fabricación de acero.

La exitosa finalización del proyecto de cobre Centinela ha consolidado la reputación de Viva Engineering como un socio confiable en proyectos industriales a gran escala que requieren el uso extensivo de acero estructural. El compromiso de la empresa con la innovación, la calidad y la satisfacción del cliente ha sido una fuerza impulsora detrás de su éxito continuo en el mercado global.

Virta – 11 Alimentadores de Correia para o Projeto Centinela no Chile, América do Sul

O projeto de cobre Centinela no Chile envolveu a fabricação e entrega de 11 alimentadores de correia de aço maciços, cada um pesando entre 60 e 70 toneladas. O uso extensivo de aço estrutural neste projeto foi realmente impressionante, demonstrando as capacidades excepcionais da Viva Engineering em lidar com desafios industriais complexos.

Os alimentadores de correia foram projetados para suportar cargas sísmicas extremas e rigorosos requisitos de transporte. Os componentes estruturais, incluindo vigas e placas soldadas de até 50 milímetros de espessura, foram cuidadosamente fabricados para garantir a integridade estrutural e a durabilidade dos alimentadores.

O sucesso do projeto foi atribuído à atenção meticulosa da equipe aos detalhes no processo de design e modelagem. Eles tiveram que modelar cada componente mecânico, desde as correias transportadoras até as polias e rolos de retorno, para garantir cálculos de peso precisos para o transporte e a instalação dessas maciças estruturas de aço.

A abordagem proativa da equipe em relação à amostragem e teste de materiais também foi crucial. Eles trabalharam em estreita colaboração com fornecedores de aço e com o inspetor chileno para garantir que todos os materiais utilizados no processo de fabricação atendesse às rigorosas exigências estabelecidas pelo cliente. Essa atenção aos detalhes foi vital para garantir a aprovação do projeto e a entrega pontual.

Além disso, o cronograma apertado do projeto, reduzido de 12 meses para apenas 6 meses, destacou a expertise da Viva Engineering em fabricação de aço e gestão de projetos. Por meio de um planejamento meticuloso e reuniões de coordenação semanais, a equipe conseguiu entregar os 11 alimentadores de correia a tempo, demonstrando suas capacidades como líder de mercado global na indústria de fabricação de aço.

A conclusão bem-sucedida do projeto de cobre Centinela consolidou a reputação da Viva Engineering como um parceiro confiável em projetos industriais de grande escala que exigem o uso extensivo de aço estrutural. O compromisso da empresa com a inovação, qualidade e satisfação do cliente tem sido uma força motriz por trás de seu sucesso contínuo no mercado global.

فيرتا – ١١ ناقل حزام لمشروع سنتينلا في تشيلي، أمريكا الجنوبية

شمل مشروع النحاس سنتينلا في تشيلي تصنيع وتسليم ١١ ناقل حزام فولاذي ضخم، يزن كل منها بين ٦٠ إلى ٧٠ طنًا. كان الاستخدام الواسع للصلب الهيكلي في هذا المشروع مثيرًا للإعجاب حقًا، مما يُظهر القدرات الاستثنائية لشركة فيفا للهندسة في التعامل مع التحديات الصناعية المعقدة.

تم تصميم ناقلات الحزام لتحمل أحمال زلزالية شديدة ومتطلبات نقل صارمة. كانت المكونات الهيكلية، بما في ذلك العوارض الملحومة والألواح التي تصل سماكتها إلى ٥٠ ملليمتر، مصنعة بعناية لضمان سلامة الهيكل ومتانة الناقلات.

نُسب نجاح المشروع إلى الانتباه الدقيق للفريق للتفاصيل في عملية التصميم والنمذجة. كان عليهم نمذجة كل مكون ميكانيكي، من أحزمة النقل إلى البكرات ودورات العودة، لضمان حسابات دقيقة للوزن لنقل وتركيب هذه الهياكل الفولاذية الضخمة.

كما كانت الاستجابة الاستباقية للفريق في أخذ عينات المواد واختبارها حاسمة أيضًا. عملوا عن كثب مع موردي الصلب والمفتش التشيلني لضمان أن جميع المواد المستخدمة في عملية التصنيع تفي بالمتطلبات الصارمة التي وضعها العميل. كانت هذه العناية بالتفاصيل ضرورية لضمان موافقة المشروع وتسليمه في الوقت المحدد.

علاوة على ذلك، كان الجدول الزمني الضيق للمشروع، الذي تم تقليصه من ١٢ شهرًا إلى ٦ أشهر فقط، يبرز خبرة فيفا للهندسة في تصنيع الصلب وإدارة المشاريع. من خلال التخطيط الدقيق واجتماعات التنسيق الأسبوعية، تمكن الفريق من تسليم الـ ١١ ناقل الحزام في الوقت المحدد، مما يوضح قدراتهم كقائد سوق عالمي في صناعة تصنيع الصلب.

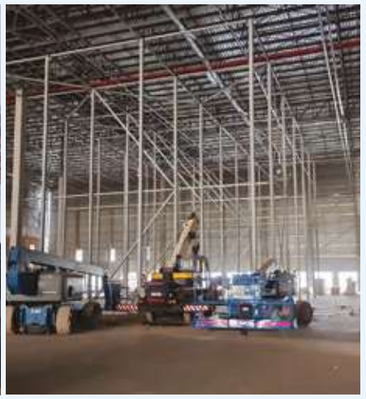
لقد عزز الانتهاء الناجح من مشروع النحاس سنتينلا سمعة فيفا للهندسة كشريك موثوق في المشاريع الصناعية الكبيرة التي تتطلب استخدامًا واسعًا للصلب الهيكلي. لقد كان التزام الشركة بالابتكار والجودة ورضا العملاء قوة دافعة وراء نجاحها المستمر في السوق العالمية.

SPONSOR: BSI STEEL

FACTORY & WAREHOUSE CATEGORY

Winner
Shoprite Checkers Warehouse Riverfields

The Shoprite Checkers Riverfields project presented an opportunity to showcase the versatility and efficiency of structural steel. The development, commissioned by Equities Property Group for the Shoprite retail chain, required a state-of-the-art distribution facility that could seamlessly integrate multiple operational components under one roof.



PROJECT TEAM

Province: Gauteng
Nominator: Stewarts & Lloyds / B&T Steel
Main Contractor: Abbeydale
Steelwork Contractor: B&T Steel
Architect: Empowered Space Architects
Structural Engineer: DG Consulting Engineers
Steel Merchants: Stewarts & Lloyds / Macsteel / BSI Steel / Clotan
Steel Detailer: CND Structural Services
Painting Contractor: IPS Painting & Mobile Sandblasting

At the heart of the design was a curved steel roof structure that not only provided the necessary functional space, but also optimized the building's overall height and cost-effectiveness. Designed by the architectural firm Empowered Spaces, the curved roof profile allowed the team to minimize the apex height to just 27 meters, despite the facility's impressive 240-meter width. This strategic decision had a cascading impact, reducing the required volume of structural steel and cladding materials, and ultimately lowering the overall construction costs.

The structural steel design was further refined to achieve a modular, easily erectable system. The main support girder trusses spanned an impressive 32 meters between columns, while the secondary trusses covered a 27-meter span. This modular approach not only facilitated the construction process but also provided the flexibility to adapt to any site challenges or changes in requirements.

The construction team, led by principal contractor Abel Construction, faced several logistical hurdles in delivering the steel components to the site. Requiring up to 40 tons of fabricated steel per day, the workshop operated around the clock, seven days a week, to ensure a steady supply. The transportation of the steel to the site was equally demanding, with up to seven trucks per day navigating the busy construction site.

To overcome these challenges, the team employed innovative installation techniques, including the use of "box lifts" and even a remarkable four-truss lift. These methods not only improved the efficiency of the erection process but also prioritized the safety of the workers, who were operating at heights of up to 27 meters.

The structural steel design's flexibility was further tested when the project scope expanded to include the addition of over 200 tons of suspended steel for the fresh Mark area's refrigeration equipment. The design team rose to the challenge, seamlessly integrating the extra load-bearing requirements without compromising the overall structural integrity or the project's budget and timeline.

The metal cladding, including the PV panels installed on the western side of the facility, further enhanced the building's energy efficiency and sustainability. The curved roof profile, combined with the strategic placement of the PV panels, allowed the project to maximize its renewable energy generation and reduce its environmental impact.

Completed within an impressive 4-5 month timeframe, the Shoprite Checkers Riverfields project stands as a testament to the power of steel construction.

The team's ability to overcome logistical hurdles, employ innovative installation techniques, and adapt to changing requirements demonstrates the inherent flexibility and efficiency of structural steel. The resulting distribution facility, with its cost-effective design, high-capacity operations, and sustainable features, is a shining example of how steel can be leveraged to create truly impressive and functional built environments.

Wells Estate Shoprite

PROJECT TEAM

Province: Port Elizabeth

Nominator: WSP Group Africa

Main Contractor: WBHO Construction

Steelwork Contractor: Uitenhage Super Steel

Architect: Empowered Spaces

Structural Engineer: WSP Group Africa

Steel Merchants:
Macsteel / Stewarts & Lloyds / NJW /
Allied Steelrode / Pro Roof

Steel Detailer: 3DCon

Cladding Manufacturer: ArcelorMittal / Bluescope Steel

Cladding Roll Former: Safintra South Africa

Cladding/Roofing Supplier:
Safal Steel / Bluescope Steel

Cladding/Roofing Contractor: Chartwell Roofing

This project for the Wells Estate ShopRite facility in South Africa showcased the extensive use of structural steel and metal cladding/roofing to construct a large-scale industrial complex. The project, undertaken by the WSP group Africa, involved the design and construction of multiple buildings totalling over 74,850 square meters of development area.

At the heart of the project was the dry goods warehouse, which featured a steel-framed structure with a floor area of 52,000 square meters and a staggering 21.5-meter eaves height. The steel roof structure utilized a dual-pitch design with a central steel monitor to provide natural lighting. In total, the dry goods facility alone required 1,413 tons of structural steel.

Beyond the dry goods warehouse, the project included other significant steel-framed structures, such as the 12,700-square-meter return center with 25-meter span trusses and the 6,600-square-meter freshmark facility, which needed to support cold room panels, refrigerant piping, and various coolers and walkways.

The use of structural steel was not limited to the main buildings. The project also incorporated steel elements in the workshop, entrance and exit guard houses, and the wash bay facility, demonstrating the versatility and adaptability of steel construction.

Complementing the steel framing, the project also featured an impressive 116,000 square meters of metal cladding and roofing. The roof sheeting utilized a Safintra Saflok 700 profile, while the side cladding employed the Safintra Widedek Deck 760 system. Both the roof and cladding were made of aluminum-zinc coated steel, providing a durable and visually appealing finish.

The scale and complexity of this project were truly remarkable. The fabrication and installation of over 2,600 tons of structural steel, including large trusses, girders, and columns up to 26 meters high, presented significant challenges. The project team had to overcome obstacles such as weather delays, material handling constraints, and the need to integrate the new structures with existing facilities.

To address these challenges, the team employed innovative solutions and fostered seamless collaboration between the engineering, fabrication, and construction disciplines. The use of Tekla 2022 for detailed modelling and Autodesk BIM 360 for data transfer enabled efficient coordination and problem-solving throughout the project.

The phased approach to construction, with the fabrication of steel elements in a workshop and the parallel erection of precast concrete elements on-site, allowed for optimized scheduling and resource utilization. Additionally, the team's attention to quality control, with the tracking of over 97,000 individual items, ensured the delivery of a high-quality final product.

The Wells Estate Shoprite project stands as a testament to the capabilities of the construction industry in South Africa. The extensive use of structural steel and metal cladding/roofing, combined with the project's scale, complexity, and tight timeline, make this an impressive engineering and construction achievement that showcases the versatility and efficiency of steel-based construction.

Takealot DC The Brickworks by Investec

PROJECT TEAM

Province: Kwazulu-Natal

Nominator: Cousins Steel International

Main Contractor: Abbeydale Construction

Steelwork Contractor: Cousins Steel International

Architect: Empowered Spaces

Structural Engineer: SiVest

Steel Merchants: Macsteel / Allied Steelrode / Roofco Steel
Detailer: Cousins Steel International

Cladding Manufacturer: Safal Steel

Cladding Roll Former: Macsteel Roofing

Painting Contractor: IPS Painting & Mobile Sandblasting

Cladding/Roofing Supplier: Macsteel Roofing

Cladding/Roofing Contractor: Tate & Nicholson

The Takealot DC project in Durban, South Africa, is a testament to the impressive capabilities of structural steel. Located within the Brickworks industrial park developed by Investec Property, this 40,000 square meter distribution center showcases the versatility and efficiency of steel as a building material.

SAISC STEEL AWARDS 2024

FACTORY & WAREHOUSE CATEGORY COMMENDATION

At the heart of the project is the use of 950 tons of structural steel, fabricated and installed by Cousins Steel International (CSI). The design, developed by Cylist, utilized standard Red Book sizes for locally available steel components, including beams, angles, circular hollow sections, lip channels, and equal angles. This approach ensured the availability of materials and streamlined the procurement process, contributing to the project's overall efficiency.

The building's structural system features traditional steel trusses with V-lattice girders, spanning between 25 and 26 meters. This design not only provided the necessary clear span for the distribution center's operations but also accommodated the three steps in the roof, a unique architectural feature that added visual interest to the building.

One of the most impressive aspects of the Takealot DC project was the team's ability to overcome significant weather challenges during the construction phase. The site in KwaZulu-Natal, South Africa, experienced a range of extreme weather conditions, including tornadoes, torrential rain, and flooding. However, the flexibility and adaptability of the steel structure allowed the project to stay on schedule, with the team making adjustments to their construction methods to maintain progress.

For example, the team opted to assemble the steel boxes on the ground, which not only improved safety on site but also enabled them to continue work during periods of inclement weather. This approach, combined with the collaborative efforts of the engineering and site teams, ensured that the project remained on track, despite the challenging environmental conditions.

The use of steel also allowed the team to adapt to last-minute design changes, such as the removal of a main concrete support column in the guard houses. The engineers were able to swiftly develop a trust-based solution that seamlessly integrated with the existing structure, demonstrating the flexibility and problem-solving capabilities of steel construction.

Beyond the technical aspects, the Takealot DC project also showcases the aesthetic appeal of steel. The finished building, with its clean lines and striking architectural features, is a testament to the design team's vision and the fabrication team's craftsmanship. The use of high-quality cladding materials, including the Novitexi roof sheeting, further enhances the building's visual appeal and contributes to its overall quality.

> The success of the Takealot DC project is a testament to the collaborative efforts of the entire project team, including the client, Investec Property, the main contractor, Abbeydale Construction, and the various subcontractors. The project's timely completion, within budget, and to the client's satisfaction, highlights the advantages of steel construction in large-scale industrial developments, where speed, adaptability, and reliable performance are crucial.

SPONSOR: MACSTEEL

METAL CLADDING CATEGORY

Winner
Weelee Centurion

The Weelee Centurion project is a shining example of the innovative and sophisticated use of steel in modern building construction. This prestigious development, completed in June 2023, showcases the exceptional capabilities of steel as a building material, as well as the expertise of the construction team in leveraging its unique properties.

PROJECT TEAM

Province: Gauteng
Nominator: Macsteel Roofing
Main Contractor: B&T Steel
Steel Architect: M&T Development
Cladding Manufacturer: Macsteel Roofing
Cladding Roll Former: Macsteel Roofing
Painting Contractor: IPS Painting & Mobile Sandblasting
Cladding/Roofing Supplier: BlueScope Steel
Cladding/Roofing Contractor: Ferrum Trading

At the heart of the project is the extensive use of high-quality steel cladding and roofing. The roof cladding utilised the Novatexi 440 profile with a thickness of 0.53 millimeters, covering an impressive area of 22,000 square meters. For the side cladding, the team opted for a clean Colorbond widespread profile, covering 9,000 square meters and totalling approximately 200 tons of cladding material.

The attention to detail and precision in the use of these steel components is what truly sets this project apart. The roof design features a complex curved shape, requiring the roofing contractor to navigate a series of challenges to ensure a seamless and water-tight finish. One such challenge was the installation of the bull noses, which needed to be carefully crafted to integrate with the Nomatexiroof cladding. The team created 10 different bull noses, each with a unique run-out at the top and end, and conducted 100 tests to ensure the perfect fit and water-tightness.

The integration of the steel cladding and roofing components was further enhanced through the use of custom-designed flashings. To accommodate the 160-millimeter difference between the rules and bull noses, the team developed a series of flashings that would create a bold, yet visually seamless, transition. This involved tapering the flashings from 380 to 280 millimeters, ensuring that no unsightly steps or joints were visible from the exterior.

The team's commitment to quality and attention to detail is further exemplified in the incorporation of polycarbonate elements. The project utilized 1-millimeter widespread satin gray polycarbonate with 20% light transmission, which not only enhanced the functionality of the structure but also contributed to its overall aesthetic appeal.

One of the most impressive feats of engineering on this project was the installation of the Novatexi – skyrolled kon the roof. This operation required the use of a 50-ton crane and meticulous planning to ensure the safe and precise placement of the large steel components. The team's logistical expertise and safety-conscious approach were crucial in overcoming this challenge, demonstrating the level of coordination and skill required to execute such a complex project.

The Weelee Centurion project stands as a testament to the versatility and performance of steel in modern building design. The seamless integration of the steel cladding and roofing, the intricate detailing, and the overall aesthetic excellence of the finished product are a true reflection of the construction team's dedication and expertise. This project serves as an inspiring example of how steel can be leveraged to create innovative, functional, and visually striking architectural masterpieces.

Harvey Thatch Skukuza - Kruger National Park

The Kruger National Park accommodation upgrade project presented a unique challenge - to enhance the visitor experience while addressing the practical and logistical issues associated with the existing thatched roofs. The decision to utilize Harvey thatch-style metal cladding as the roofing solution was a strategic one that addressed multiple priorities.

PROJECT TEAM

Province: Mpumalanga

Nominator: Harvey Roofing Products

Main Contractor: Riendzo Renene Group / Ntlemo Projects

Steelwork Contractor:
Riendzo Renene Group / Ntlemo Projects

Architect: kwpCREATE Architects

Structural Engineer: kwpCREATE Architects

Cladding Manufacturer: Harvey Roofing Products

Cladding Roll Former: Harvey Roofing Products

Cladding/Roofing Supplier: Harvey Roofing Products

Cladding/Roofing Contractor:
Riendzo Renene Group / Ntlemo Projects

Thatched roofs have long been a hallmark of the traditional rondavel architecture in Kruger, evoking a sense of nostalgia and heritage. However, these roofs also come with significant drawbacks. The fire risk is enormous, with Skukuza camp alone housing over 200 thatched units. The high insurance costs associated with this fire hazard placed a heavy financial burden on the park's operations. Additionally, the maintenance requirements for thatched roofs are extensive, with issues like vermin, weather damage, and general wear and tear requiring constant attention.

The metal cladding solution provided a way to overcome these challenges while preserving the aesthetic appeal of the thatched roofs. The Harvey thatch-style tiles were specifically chosen for their fire-resistant properties, boasting an 8+ fire rating. This dramatically reduced the risk of fires and the associated insurance costs, freeing up funds that could be redirected towards other critical infrastructure and maintenance needs.

Equally important was the ability of the metal cladding to maintain the rounded, domed appearance of the traditional rondavel design. The design team worked closely with the Harvey Thatch team to develop a solution that would allow the square metal tiles to be shaped and fitted onto the curved roof profiles, preserving the iconic silhouette of the buildings. This attention to detail was crucial in ensuring that the upgraded accommodations would still resonate with the park's regular visitors, who cherish the familiar aesthetic.

The metal cladding solution also offered practical benefits in terms of installation and ongoing maintenance. As a lightweight, modular system, the Harvey tiles could be easily transported and installed with minimal disruption to the site. This was a significant advantage, as the park needed to maintain operations throughout the upgrade process. Additionally, the metal cladding requires far less maintenance than traditional thatch, reducing the burden on the park's maintenance teams and ensuring a more reliable and consistent guest experience.

The project also incorporated a skills development component, with local contractors being trained on the installation of the Harvey tiles. This not only supported the local economy but also ensured that the park would have a pool of skilled labor to draw from for future maintenance and upgrades.

In summary, the use of Harvey thatch-style metal cladding in the Kruger National Park accommodation upgrade project was a strategic and multifaceted solution. It addressed the pressing issues of fire risk, maintenance costs, and operational disruption, while preserving the cherished aesthetic of the traditional rondavel design. The technical achievements in shaping the metal to fit the curved roofs, combined with the practical benefits of easy installation and reduced maintenance, make this a truly impressive and innovative approach to upgrading the park's iconic accommodations.

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LIGHT STEEL FRAME CATEGORY

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Winner
Zululami House

The Zululami House project showcases the remarkable capabilities of light steel framing in the residential sector. This private home, located on the North Coast, was designed to be the client's retirement residence, and the team was tasked with bringing the client's vision to life in an efficient and cost-effective manner.

PROJECT TEAM

Province: Kwazulu-Natal
Nominator: Build 26-6
Main Contractor: JHC Projects
Steelwork Contractor: Build 26-6
Architect: LevEco Architects
Structural Engineer: Barry Kriel Consulting
Steel Detailer: Trumod

From the outset, the client had specific requirements that made a conventional brick-and-mortar construction approach challenging. He desired a standard-looking brick home, but with several unique design elements, including high-pitched roofs and large, open ceiling spaces. Achieving these features through traditional building methods would have been an expensive and complex undertaking.

The decision to utilize a lightweight steel frame proved to be a game-changer. The inherent strength and design flexibility of steel allowed the team to create the expansive, vaulted ceilings and open floor plans the client envisioned. By using steel, the team was able to engineer solutions that would have been nearly impossible with conventional construction techniques.

One of the standout challenges was the creation of the large, open-plan living area, which spanned an impressive 6.5 meters wide by 13.6 meters long. To accomplish this, the team employed innovative structural solutions, such as using pocket holes in the walls to attach the trusses at both the top and bottom cords. This approach helped prevent any rotation or wall spread, ensuring the structural integrity of the space.

Additionally, the team incorporated web trusses in the verandas, effectively creating a “strong back” that helped to keep the walls straight and prevent bowing. The use of plated beams also played a crucial role in managing the deflection imposed by the expansive spans, demonstrating the engineering prowess of the project team.

Beyond the structural achievements, the speed and efficiency of the steel-framed construction process were equally impressive. By segmenting the project into two phases - the main house and the garage annex - the team was able to optimize material deliveries and minimize site congestion. This strategic approach allowed for a remarkably rapid construction timeline, with the steel framing completed by November 2023 and the entire project finished by April 2024.

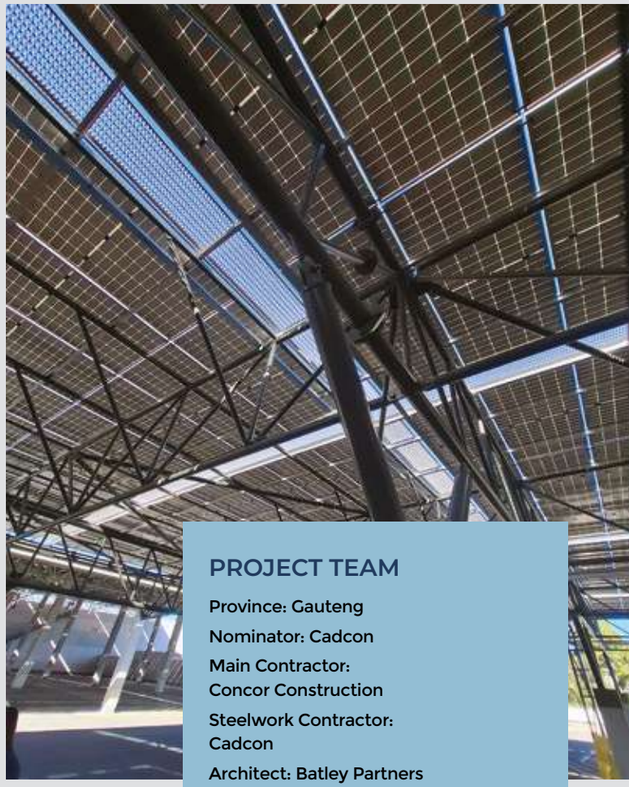
The high-quality finishes and attention to detail further showcase the benefits of using steel in this premium residential project. The straight walls, level ceilings, and seamless integration of building systems, such as the air conditioning ductwork, all contributed to the exceptional end result.

Ultimately, the Zululami House project stands as a testament to the transformative potential of steel in the residential sector. By leveraging the inherent strengths of this versatile material, the team was able to create a stunning, high-end home that exceeded the client’s expectations.

This project serves as a shining example of how steel can deliver premium results, faster construction timelines, and enhanced design flexibility - all without compromising on quality or aesthetics.

SPONSOR: STEWARTS & LLOYDS

INNOVATION & SUSTAINABILITY CATEGORY



PROJECT TEAM

Province: Gauteng

Nominator: Cadcon

Main Contractor:
Concor Construction

Steelwork Contractor:
Cadcon

Architect: Batley Partners

Structural Engineer: Zutari

Steel Merchants:
Macsteel / BSI Steel /
Allied Steelrode / Garsin

Steel Detailer:
Structech Detailers / Mondo Cane

Painting Contractor:
IPS Painting & Mobile Sandblasting

Winner
Eastgate Solar Phase 2

The Eastgate Solar Phase 2 project was an ambitious undertaking that showcased the versatility and impressive capabilities of steel construction. Covering an expansive 30,000 square meter area, the project utilised over 560 tons of steel, primarily circular and square hollow sections to create a striking, architecturally-pleasing solar panel structure.

At the heart of the project was the need to reduce the shopping center's grid consumption by 35% while also providing covered rooftop parking for visitors. To achieve this, the design team, led by Zutari engineer Mark Axelrod, had to overcome several unique challenges. The existing roofs were not suitable for directly mounting solar panels, so a new steel-framed structure had to be built to support the array.

The team opted for a solution that used steel rails to hold the solar panels, with gaps between them to allow water drainage. This approach eliminated the need for additional waterproofing and drainage systems, streamlining the construction process. For the first roof near the cinemas, they even designed the structure to accommodate future retail development, demonstrating the flexibility of the steel-based system.

Steelwork Contractor: Cadcon, led by Paul Rebelo, played a crucial role in bringing the project to life. The majority of the structural elements, including the trusses, columns, and edge plates, were fabricated using tubular and square hollow steel sections. This material choice not only provided the necessary strength and stability but also contributed to the structure's lightweight and visually appealing aesthetic.

Constructing the solar panel array on an active shopping center presented significant logistical challenges. Cadcon had to carefully coordinate the delivery and installation of the steel components, ensuring minimal disruption to the center's operations. The team worked closely with the main contractor, Conco, represented by Martin Muller, to navigate the complexities of working on a live site, including managing traffic, access, and the integration with existing building systems.

One of the most impressive aspects of the project was the sheer scale of the solar panel installation. With over 13,000 panels, the Eastgate Solar Phase 2 project is currently the largest solar rooftop installation in southern Africa. The striking visual impact of the structure is further enhanced at night, when the underside of the steel trusses is illuminated, creating a mesmerizing display.

The successful completion of this project is a testament to the collaborative efforts of the entire team, including the steel suppliers, engineers, and contractors. By leveraging the strengths of steel construction, they were able to create a sustainable, visually striking, and highly functional solution that will serve the Eastgate Shopping Center for years to come.

The Eastgate Solar Phase 2 project stands as a shining example of how steel can be used to tackle complex design challenges, optimize energy efficiency, and deliver impressive architectural results. The innovative use of tubular and hollow steel sections, combined with the project's scale and visual impact, make it a truly remarkable achievement in the world of steel construction.

Redstone Concentrated Solar Power

The Redstone Concentrated Solar Power (CSP) project in South Africa's Northern Cape region is an impressive showcase of steel's capabilities in large-scale renewable energy infrastructure. Located approximately 20 km from Postmasburg, this 100 MW CSP plant with 12 hours of energy storage has become a significant investment under the country's Renewable Energy Independent Power Producer Procurement (REIPPP) program.

At the heart of the Redstone CSP project are the extensive steel structures that support the key components. Paul Ribero of Cadcon, the steel fabricator on the project, provides an in-depth overview of the steel's role and the challenges overcome during fabrication and installation.

The project's scope included the supply and installation of the hot and cold molten storage structures, as well as the steam generation system. These steel structures are truly massive in scale, with the top and bottom chords of the girders measuring a staggering one meter in depth. The hot and cold structures, each around 7.5 meters deep, straddle over the corresponding molten storage tanks and support the critical pumps and agitators that circulate the hot and cold molten materials.

Fabricating these colossal steel components was no easy feat. Due to material availability issues, Cadcon had to resort to fabricating 95% of the steel from plates rather than using pre-engineered sections. This required the team to utilize advanced submerged arc welding techniques, running extended shifts on their subarc machines to produce the necessary plate blanks. The intricate detailing and connection design were also critical, with Cadcon working closely with the project engineers to develop the appropriate connections for these high-stress structures.

To ensure a seamless installation, Cadcon undertook a full trial assembly of both the hot and cold structures in their workshop. This allowed them to verify the fit and alignment, making adjustments as needed before the final galvanizing and site installation. The galvanizing process itself was a carefully planned operation, as the team had to strategize to minimize the amount of galvanizing pickup on these massive structures.

The installation of the steel structures was carried out by Sea Counting Structural Erectors, who used 800-ton and 630-ton cranes to lift and position the pre-assembled girders in a single piece. The steam generation system, fabricated in China, was also installed by Cadcon as part of their scope.

In total, the Redstone CSP project utilized approximately 3,500 tons of steel, with 1,200 tons for the hot and cold molten structures and 2,000 tons for the steam generation system. The sheer scale and complexity of these steel components are truly impressive, with the team overcoming material availability challenges, intricate detailing, and careful planning for fabrication and installation.

PROJECT TEAM

Province: Northern Cape

Nominator: Cadcon

Main Contractor: SEPCOIII

Steelwork Contractor: Cadcon

Structural Engineer: SEPCOIII

Connection Design EDS Engineering

Steel Merchants: Macsteel / BSI Steel / Allied Steelrode

Steel Detailer: Mondo Cane

Beyond the technical achievements, the Redstone CSP project's reliance on steel highlights the material's crucial role in enabling large-scale renewable energy infrastructure. The towering steel structures, some exceeding 50 meters in height, are a testament to the versatility and capabilities of steel in supporting the energy transition. This project stands as an impressive showcase of how steel can be leveraged to build a sustainable energy future.

Harvey Thatch Skukuza - Kruger National Park

The use of Harvey thatch-style metal cladding in the Kruger National Park accommodation upgrade project addresses key challenges with the existing thatched roofs, including fire risk, high maintenance costs, and disruption to operations.

The metal cladding provides fire resistance with an A+ fire rating, reduces maintenance needs, and can be easily installed over the existing thatch. Importantly, the team was able to shape the metal to maintain the traditional rounded dome design, preserving the aesthetic appeal. The project also involved training local contractors on the installation, supporting skills development. Overall, the metal cladding solution balances functionality, cost-effectiveness, and heritage preservation.

For a complete project overview refer to pages 33-34.

Unica Iron and Steel is a leading manufacturer of light and medium structural steel, located in Babelegi, Pretoria, Gauteng.

Established in 2006, the company has grown to over 800 staff operating from a 36 000m². facility where the company has garnered a reputation for manufacturing quality light structural sections (window sections, square bar and angle iron) commercially.

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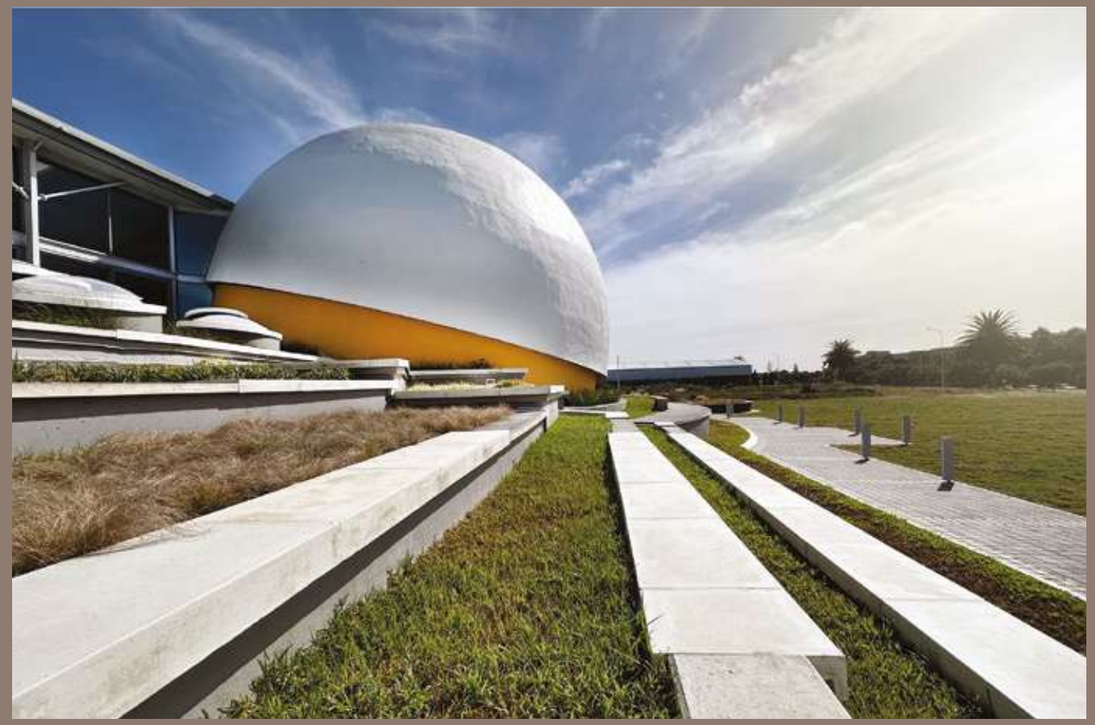

ARCHITECTURE CATEGORY

Winner
NMU Science Centre

The NMU Science Centre project showcases the remarkable versatility and precision of steel construction. At the heart of the building is a striking 14-degree tilted dome structure, which presented a significant engineering challenge that was masterfully overcome through the use of steel.

PROJECT TEAM

Province: Port Elizabeth
Nominator: SVA International
Main Contractor: WBHO Construction
Steelwork Contractor: Uitenhage Super Steel
Architect: SVA International
Structural Engineer: Bosch Projects
Steel Detailer: Tekla Structures
Cladding Manufacturer: Safintra South Africa
Cladding Roll Former: Safintra South Africa
Cladding/Roofing Supplier: Safintra South Africa
Cladding/Roofing Contractor: Safintra South Africa

The dome's design called for a complex steel framework, with a network of tubular sections and pipe-to-flange connections that had to be fabricated with the utmost accuracy. The architects and engineers worked closely with the steel contractor, Uitenhage Super Steel, to develop a detailed 3D model that allowed for precise coordination and integration of the steel structure with the other building systems.

One of the key aspects that made this project so impressive was the level of detail and precision required in the steel fabrication and installation. The dome's tilted angle meant that each section of the steel framework had to be custom-cut and fitted to ensure a perfect fit. The team utilized advanced software like Revit and Trimble Connect to model the intricate connections and junctions, allowing them to identify and resolve any potential clashes or issues before the steel was even fabricated.

The installation process was equally challenging, as the steel arches that formed the backbone of the dome had to be erected in a specific sequence to ensure the stability of the structure. The steelwork contractor, Keshan Saminath, from Uitenhage Super Steel, described the process as a delicate dance, where they had to carefully coordinate the placement of each element to prevent the structure from collapsing.

The attention to detail extended beyond the dome itself, with the team meticulously planning the integration of the steel structure with the building's other components, such as the HVAC system and the digital planetarium installation. The use of 3D modeling allowed the architects and engineers to visualize the complex interplay of these systems, ensuring that every element fit together seamlessly.

What truly sets this project apart is the way the steel construction was used to realize the architects' bold, sculptural vision. The tilted dome, with its seamless integration into the surrounding landscape, is a testament to the versatility of steel and the skill of the project team. The exposed steel structure within the building's interior also adds a sense of dynamism and visual interest, celebrating the inherent beauty of the material.

In summary, the NMU Science Centre project is an impressive showcase of the capabilities of steel construction. The meticulous planning, fabrication, and installation processes, combined with the innovative use of 3D modeling and collaboration, allowed the team to overcome the significant engineering challenges posed by the tilted dome structure.

SAISC STEEL AWARDS 2024
ARCHITECTURE CATEGORY COMMENDATION

15 Fredman Drive Sandton

Steel was the backbone of this ambitious renovation project, enabling the architects and engineers to breathe new life into an existing building and transform it into a striking, modern workspace. The client's vision was to retain the character of the original structure while creating a sleek, industrial-inspired environment that would showcase their organisation's forward-thinking approach.

At the heart of the design was the sawtooth roof structure, a bold and innovative use of steel that was crucial to the project's success. Crafted from a series of interconnected rectangular hollow sections, this lightweight yet robust framework allowed for the creation of a spacious, open-plan layout with ample natural light flooding in through the strategically placed skylights. The engineers at Sotaralis Consulting faced significant challenges in designing this intricate steel structure, having to carefully consider the eccentricities and alignment issues inherent in using hollow sections.

Beyond the roof, steel was employed throughout the building in a variety of creative and functional ways. The bridges and cantilevered slabs, supported by large steel beams, seamlessly integrated the new additions with the existing structure, while the steel staircase, with its slender bracing and minimal connections, provided a striking focal point in the entrance foyer. Even the facades, which had previously been a separate sunscreen system, were carefully integrated into the new steel-framed structure, requiring meticulous engineering to ensure a cohesive and visually striking result.

What truly sets this project apart, however, is the way the steel elements were executed and finished to align with the client's vision of a raw, industrial aesthetic. The steelwork contractor, Ferro Eleganza, went to great lengths to ensure the steel was not only structurally sound but also visually appealing, with welded connections carefully polished and painted to create a seamless, monolithic appearance. The attention to detail extended to the paint specifications, with two distinct systems used for the exposed and hidden steel elements to achieve the desired look and feel. The challenges faced by the team were significant, from the limited access and tight spaces that required hand-installation of many steel components to the need to precisely measure and fit each element to the existing building. Yet, through a collaborative effort and a deep understanding of the design intent, they were able to overcome these obstacles and deliver a truly remarkable transformation.

The end result is a space that not only meets the client's functional requirements but also serves as a stunning showcase for the expressive potential of steel in architecture. From the soaring sawtooth roof to the delicate yet robust staircase, every steel element has been carefully considered and executed, creating a cohesive and visually striking environment that is a testament to the skill and creativity of the entire project team.

PROJECT TEAM

Province: Gauteng
Nominator: Ferro Eleganza
Main Contractor: WBHO Construction
Steelwork Contractor: Ferro Eleganza
Architect: Paragon Architects
Structural Engineer: Sotiralis Consulting Engineers
Steel Detailer: CND Structural Services
Cladding Manufacturer: Rheinzink
Cladding Roll Former: Rheinzink
Cladding/Roofing Supplier: Safintra South Africa
Cladding/Roofing Contractor: Chartwell Roofing

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TUBULAR CATEGORY

Winner
Mother of Mercy Shrine

The Mother of Mercy Shrine project is a remarkable showcase of the capabilities of steel construction. The building's design, centered around a striking seven-sided flower-like form, presented a complex set of engineering and fabrication challenges that the project team expertly navigated.

At the heart of the structure is a central heptagon, elevated above the ground and serving as the foundation for the building's unique roof. This central element was a critical component, requiring precise geometry and careful erection to ensure the stability and integrity of the entire structure.

To support this central heptagon, the team employed a innovative approach, utilizing seven scaffold towers positioned at the corners to temporarily hold the roof in place during the construction process. As the team began to add the radial steel members that would form the "petals" of the flower-like roof, the complexity of the geometry became increasingly apparent.

With no parallel sides and a constantly changing curvature, the fabrication of these intricate steel elements was a true test of the team's skills. Traditional square hollow sections proved inadequate, leading the team to explore the use of circular hollow sections that could better follow the required geometry.

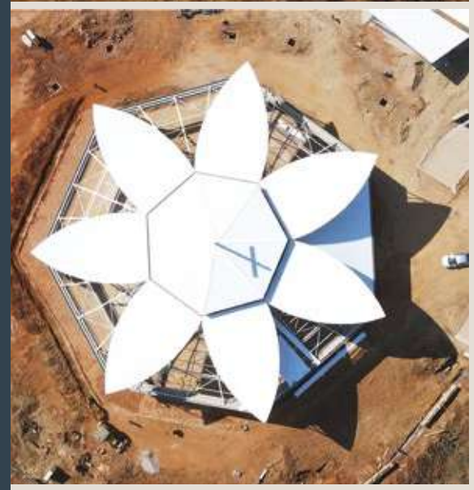
The transition from the central heptagon to the outer perimeter of the roof also presented a significant challenge. To achieve the desired aesthetic and functional outcome, the team developed a unique detail involving a rolled, circular hollow section that was spiraled to match the curvature, with an additional rolled angle section added to provide a surface for the roof cladding to attach.

Throughout the fabrication process, the team relied heavily on quality control measures and precise detailing, as the complex intersections and connections between the various steel members left little room for error. The lack of a pre-assembly process further heightened the importance of this attention to detail, as the team had to trust in the accuracy of their shop drawings and fabrication to ensure a successful on-site erection.

The erection of the steel structure was no less impressive. With the central heptagon supported by the scaffold towers, the team methodically added the radial steel members, working outward until the entire roof structure was in place. The removal of the central towers was a critical moment, as the team held their breath to see if the self-supporting design would hold true. Remarkably, the roof settled by only 10 millimeters, a testament to the precision of the engineering and fabrication. The end result is a stunning architectural centerpiece that seamlessly integrates engineering ingenuity and design vision.

The use of steel, with its inherent strength, versatility, and ability to be shaped into complex forms, was essential in bringing this project to life. The project team's ability to overcome the significant geometric challenges, through innovative solutions and meticulous attention to detail, is a true testament to the capabilities of the steel construction industry.

This building is not only a visually striking landmark, but also a remarkable achievement in the realm of steel engineering and construction.



PROJECT TEAM

Province: Gauteng

Nominator: Pro Roof / Tass Engineering

Main Contractor: Gaudi Construction

Steelwork Contractor: Tass Engineering

Architect: Perception Architects

Structural Engineer:
BSM Baker Consulting Engineers /
THS Consulting Engineers

Steel Merchants:
BSI Steel / Tubecon / Clotan Steel /
Steel Bank / Alliedsteelrode / GK Steel /
Macsteel Tubing / Stewarts & Lloyds

Steel Detailer: 3D Con Steel Detailing

Cladding Manufacturer:
ArcelorMittal South Africa

Cladding Roll Former: Pro Roof Pretoria

Cladding/Roofing Supplier:
Pro Roof Pretoria

Cladding/Roofing Contractor:
PA Steel Structures

Eastgate Solar Phase 2

The Eastgate Solar Phase 2 project utilised over 560 tons of primarily tubular and square hollow steel sections to construct an architecturally pleasing, lightweight, and sustainable solar panel structure covering the vast 30,000 square meter parking areas of the shopping center.

The impressive scale, with over 13,000 solar panels installed, and the striking night-time lighting make this one of the largest and most visually striking solar rooftop installations in southern Africa. The project team overcame significant logistical and coordination challenges to complete the work while keeping the live shopping center operational, showcasing their flexibility and expertise.

For a complete project overview refer to pages 41-42.

NMU Science Centre

The NMU Science Centre project demonstrates the capabilities of steel construction. The centerpiece is a tilted 14-degree dome structure, which required meticulous coordination and fabrication of the steel components. This included detailed modeling, precise cutting of tubular sections, and careful installation of the pipe-to-flange connections to ensure the dome's stability and accuracy.

The extensive use of 3D software and real-time collaboration between the architects, engineers, and steel contractor enabled the seamless integration of the steel structure with other building systems, allowing the realization of the unique architectural vision.

The project showcases how steel can be used to achieve complex, sculptural forms.

For a complete project overview refer to pages 48-49.

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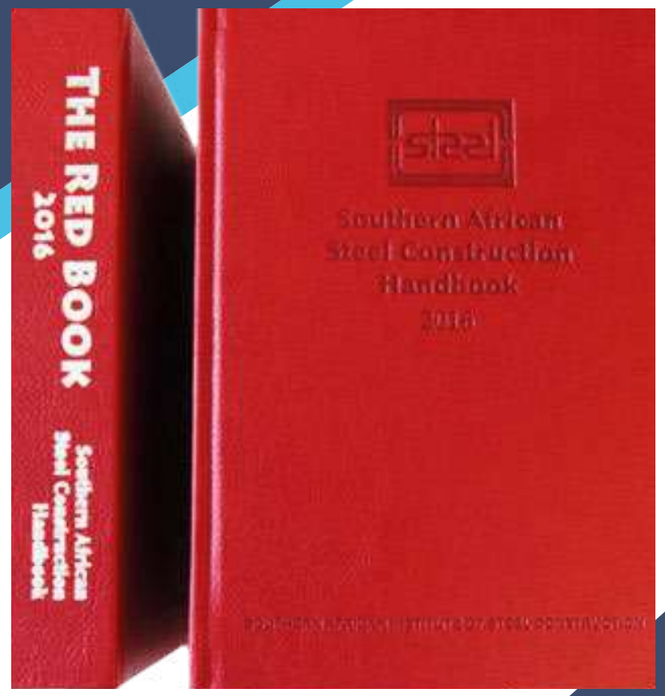

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MINING & INDUSTRIAL CATEGORY

Winner
Virta - 11 off Belt Feeders for a Copper Mining Project in Chile

This project involved the fabrication of 11 massive belt feeders, each weighing 60-70 tons, for a copper mine in Chile. The structural steel components, including built-up welded beams and plates up to 50mm thick, were carefully engineered and fabricated to withstand extreme seismic loads and rigorous transport requirements. The impressive scale, complexity, and attention to detail in the steel design and fabrication were critical to the success of this project.

For a complete project overview refer to pages 14-20.

Mogale Tailings Retreatment Project

The Mogale Tailings Retreatment Project showcases the exceptional versatility and benefits of steel construction in a large-scale mining application. Managed by Betterect, a steel fabrication company based in South Africa, this project involved the design, fabrication, and installation of 10 custom-engineered CIL (carbon-in-leach) tanks for the client.

At the heart of this project's success was Betterect's innovative use of steel. Rather than opting for the traditional welded tank design commonly seen in the mining industry, Betterect proposed a bolted and rubberized solution. This bold approach not only offered significant cost savings of up to 20% for the client, but also showcased the inherent advantages of steel construction.

By designing the tanks to be fully bolted, Betterect was able to fabricate the 1,300-ton steel components in a controlled workshop environment. This eliminated the need for on-site welding, which can be heavily impacted by weather delays and safety concerns. The modular, Lego-like assembly of the bolted tank sections allowed for faster installation, with Betterect estimating a 10% reduction in on-site hook time compared to welded designs.

The high strength and durability of steel were critical factors in this project. The tanks, standing at nearly 16 meters in diameter and 18 meters in height, were constructed using S355JR steel, ensuring they could withstand the harsh operating conditions of the mining environment.

Betterect's attention to detail in the design process, including comprehensive finite element analysis, further reinforced the structural integrity of the tanks. Beyond the physical properties of steel, its inherent customizability proved invaluable. The client had several specific design requests to optimize the tanks' maintenance and operational requirements, which Betterect was able to seamlessly incorporate into the final product. The flexibility of steel allowed for these late-stage changes without significant impact to the project timeline or budget.

Equally impressive was Betterect's commitment to quality throughout the fabrication and installation process. All welds were rigorously tested, with the floor welds achieving a remarkable 100% pass rate on non-destructive testing. The in-house fabrication and rubber lining of the tank components further demonstrated Betterect's dedication to delivering a high-quality, durable solution.

The success of this project can be attributed to the strategic partnership between Betterect and the client. By embracing an innovative steel-based approach, the team was able to overcome significant weather challenges and deliver the project ahead of schedule. The cost savings, estimated to be as high as 40% compared to a traditional welded design, highlight the economic benefits of steel construction in this application.

Ultimately, the Mogale Tailings Retreatment Project stands as a testament to the remarkable capabilities of steel. Betterect's use of this versatile material, combined with their engineering expertise and collaborative approach, resulted in a highly efficient, cost-effective, and quality-driven solution for mining infrastructure projects.

PROJECT TEAM

Province: Gauteng
Nominator: Betterect
Main Contractor: Betterect
Steelwork Contractor: Betterect
Architect: Betterect
Structural Engineer: Betterect
Steel Merchants: Allied Steelrode / Macsteel / BSI Steel
Steel Detailer: Betterect

SAISC STEEL AWARDS 2024
MINING & INDUSTRIAL CATEGORY COMMENDATION

West Chimney Repairs and Related Works at Kusile Power Station

The Kusile Chimney West project undertaken by Concor Construction showcased the significant benefits of using steel for the construction of three temporary 116-meter stacks and bypass ducts. This critical infrastructure project, part of the first phase to get three units back up and running at the Kusile power station, required a rapid and effective solution.

PROJECT TEAM

Province: Mpumalanga
Nominator: Concor Construction
Main Contractor: Concor Construction
Steelwork Contractor: Domento Mechanical Services
Structural Engineer: ICC Commonwealth
Steel Detailer: Bekker Steel

The project team, led by Juan Passmore as the Project Director and Hilton McDonald as the Design Review Engineer, recognized the advantages that steel could offer. Compared to other materials, steel allowed for early engineering involvement and collaboration with the initial designers of the concrete stacks at the Kusile power station. This enabled the team to develop an optimal design structure that met the project requirements without impacting the existing power station operations.

The use of steel also facilitated offsite fabrication and modular construction, which was a key factor in the project's success. The stacks were fabricated using 2.4-meter wide steel plate structures with bolted flanges, allowing for controlled workshop conditions and efficient transportation to the site. The team at Dementia Mechanical Services, the selected fabricator, utilized their own facilities and expertise to roll the plates, cut the flanges, and assemble the modular segments.

The modular design, with each stack comprising approximately 605 tons of steel, enabled the project team to fabricate and install the three stacks simultaneously. This was a significant achievement, as the total steel requirement for the stacks and bypass ducts amounted to over 1,800 tons. The bolted flange connections allowed for easy on-site assembly, with the segments being transported to a pre-assembly area before being lifted and installed onto the piled foundations.

The versatility of steel also proved beneficial for the project's timeline. The team was able to complete the entire project, from the initial design phase to the final handover, within just seven months. This rapid turnaround was made possible by the controlled fabrication environment, efficient transportation, and straightforward on-site installation. The use of tracking systems and detailed schedules further contributed to the project's successful delivery.

Moreover, the steel design's inherent advantages extended beyond the construction phase. The bolted connections facilitated the safe and easy dismantling of the stacks in 2025, as required by the environmental regulations in South Africa. This foresight in the design process demonstrates the suitability of steel for temporary infrastructure projects with specific lifecycle requirements.

Throughout the project, the Concor Construction team faced and overcame various challenges, such as working in a congested brownfield site, managing high-risk factors like wind and lightning, and ensuring the safety and quality of the fabrication and installation processes. The team's expertise, coupled with the versatility and adaptability of steel, enabled them to deliver a successful project that met the critical timeline and technical requirements.

In conclusion, the Kusile Chimney West project showcases the remarkable capabilities of steel in addressing complex infrastructure challenges. The use of steel allowed for rapid offsite fabrication, modular construction, and efficient on-site installation, ultimately contributing to the project's timely and successful completion.

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- Finding support when you feel you are standing alone
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- Discuss industry issues and let your view be heard
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BEST REGIONAL PROJECTS

Gauteng Winner Mother of Mercy Shrine

PROJECT TEAM

Province: Gauteng

Nominator: Pro Roof & Tass Engineering

Main Contractor: Gaudi Construction

Steelwork Contractor: Tass Engineering

Architect: Perception Architects

Structural Engineer: BSM Baker Consulting Engineers and THS Consulting Engineers

Steel Merchants: BSI Steel / Tubecon / Clotan Steel / Steel Bank / Alliedsteelrode / GK Steel / Macsteel Tubing / Stewarts & Lloyds

Steel Detailer: 3D Con Steel Detailing

Cladding Manufacturer: ArcelorMittal South Africa

Cladding Roll Former: Pro Roof Pretoria

Cladding/Roofing Supplier: Pro Roof Pretoria

Cladding/Roofing Contractor: PA Steel Structures

For complete project overview refer to pages 54-55.

KwaZulu-Natal Winner Nelson Mandela Cruise Terminal

PROJECT TEAM

Province: Kwazulu-Natal

Nominator: Elphick Proome Architecture

Main Contractor: Steffanuti Stocks Building KZN

Steelwork Contractor: Avellini Bros.

Architect: Elphick Proome Architects

Structural Engineer: Arup

Steel Merchants: Macsteel / Allied Steelrode

Steel Detailer: Avellini Bros

Cladding Manufacturer: EQUITONE® Façade Solutions

Cladding Roll Former: EQUITONE® Façade Solutions

Cladding/Roofing Supplier: MRC Group

Cladding/Roofing Contractor: MRC Group

The Nelson Mandela Cruise Terminal is an impressive showcase of the capabilities of steel construction. From the initial design phase to the final execution, steel played a pivotal role in realizing the architects' ambitious vision for this landmark building.

At the heart of the project is the extensive use of structural steel, with over 3,200 tons of material employed across the various components. The structural framing strategy relied on a combination of slender circular columns, shear and core walls for stability, and a massive brace bay to brace the roof back to these stability elements. This allowed the architects to achieve the large, open spans of over 13 meters that define the building's expansive interiors. One of the most notable structural challenges was the 105-meter unbalanced cantilever that supported the northern edge of the roof. To resolve the complex forces at play, the engineering team developed an innovative "anvil" concrete structure that effectively transferred the loads back into the foundation system. This required extensive optimization and testing to ensure the structural integrity of this unique solution.

The use of specialized steel sections, such as castellated beams, further showcases the versatility of the material. These beams were employed in the entrance canopy, adding visual interest and structural efficiency to the design.

Beyond the primary structural frame, steel also played a crucial role in the building's facade and interior fit-out. The equitone cladding system, which covers nearly 12,000 square meters of the facade and roof, was supported by a custom-engineered steel substructure. This allowed the architects to realize their vision of a seamless, parametric facade that wraps around the building, creating a cohesive and visually striking aesthetic.

Inside the terminal, the use of light steel framing was instrumental in the installation of the complex, triangular-patterned ceiling. The team overcame challenges related to weight, warping, and tolerance issues by transitioning from the originally proposed timber solution to a more robust and precise steel subgrid system. This not only ensured the structural integrity of the ceiling but also enabled the intricate design to be executed with exceptional accuracy.

Throughout the project, the coordination and collaboration between the various contractors and subcontractors were essential to the successful implementation of the steel-intensive design. The meticulous attention to detail and advanced manufacturing techniques required to fabricate and install the specialized steel components highlight the level of expertise and craftsmanship involved.

PROJECT TEAM

Province: Port Elizabeth

Nominator: SVA International

Main Contractor: WBHO Construction

Steelwork Contractor: Uitenhage Super Steel

Architect: SVA International

Structural Engineer: Bosch Projects

Steel Detailer: Tekla Structures

Cladding Manufacturer: Safintra South Africa

Cladding Roll Former: Safintra South Africa

Cladding/Roofing Supplier: Safintra South Africa

Cladding/Roofing Contractor: Safintra South Africa

For a complete project overview refer to pages 48-49.

Eastern Cape Winner
NMU Science Centre

Northern Cape Winner Redstone Concentrated Solar Power

The Redstone CSP project made extensive use of steel to construct its key infrastructure. Massive steel structures, some over 50 meters tall, were fabricated to support the hot and cold molten storage tanks as well as the steam generation system.

The sheer scale of these steel components is truly impressive, with the top and bottom chords of the girders measuring a meter deep. Overcoming challenges like material availability, the project team utilized advanced fabrication techniques to assemble these complex structures.

The end result is a showcase of steel's versatility and capabilities in enabling large-scale renewable energy projects. The Redstone CSP's reliance on steel highlights the material's crucial role in sustainable energy infrastructure.

For a complete project overview refer to pages 43-44.

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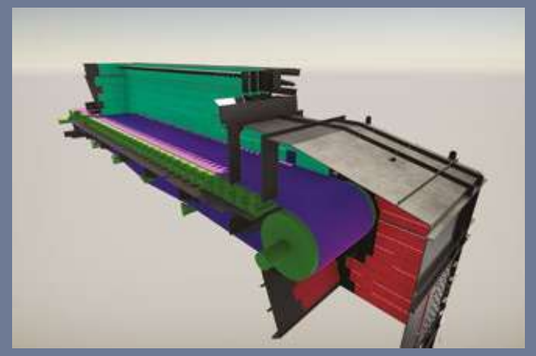

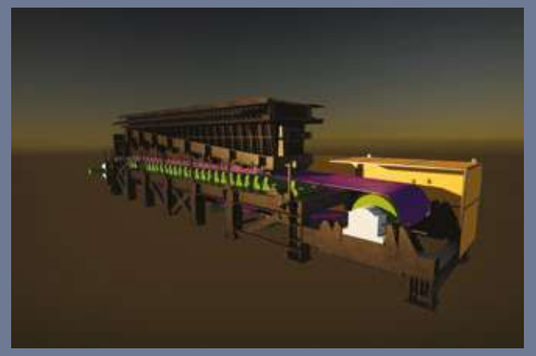

VIRTA - 11 OFF BELT FEEDERS FOR A COPPER MINING PROJECT IN CHILE

BEST EXPORT PROJECT

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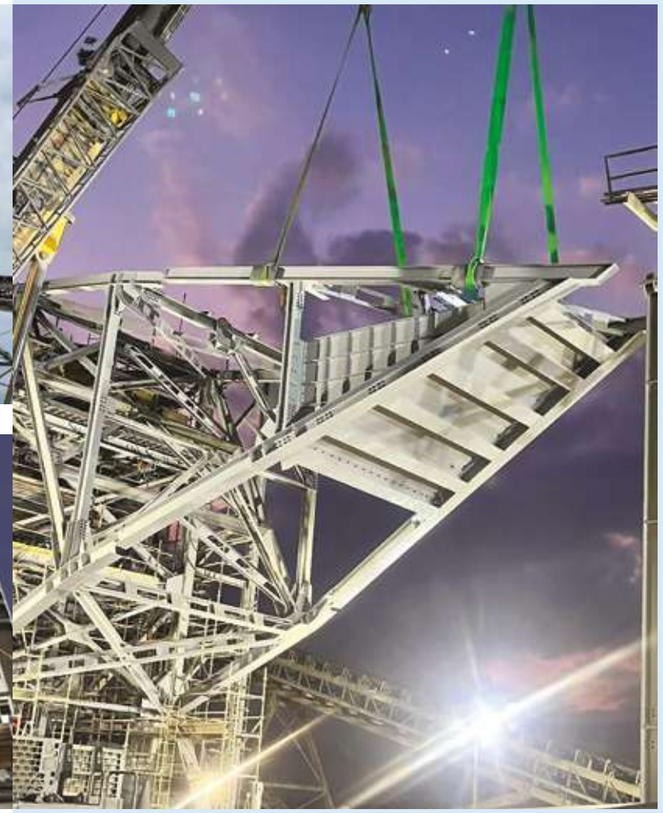

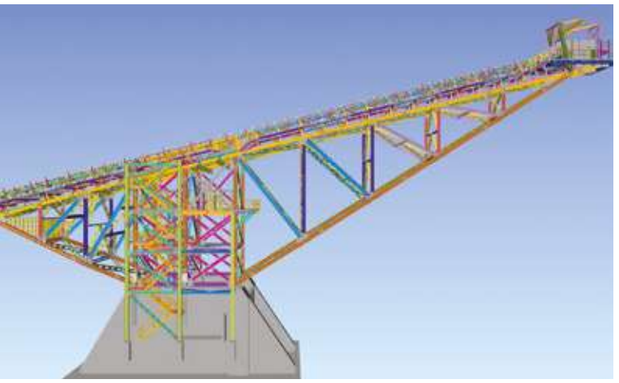

Engineering Excellence
Pueblo Viejo - New CV120 Stockpile Feed Conveyor

This project in the Dominican Republic, undertaken by Results and Consulting Engineers for client Barrick Gold, exemplifies the remarkable capabilities of steel construction. The task was to design and build a stockpile conveyor system, with a striking 70-meter cantilever span, to transport material from a crushing plant to a gold processing facility.

PROJECT TEAM

Nominator:
Resultant Consulting Engineers

Main Contractor: CODEMON

Structural Engineer:
Resultant Consulting Engineers

Steel Merchants: EYMAQ

Steel Detailer: Robert Whiteman

The use of steel was essential to achieving this ambitious design. With a cantilever distance of around 40 meters and a total span of 70 meters, a structure of this scale and configuration would not have been feasible using alternative materials like concrete. Steel's unparalleled strength-to-weight ratio allowed the engineers to create a lightweight yet incredibly robust framework capable of spanning such a vast distance.

Moreover, the project site presented significant environmental challenges, being located in a seismic and hurricane-prone region. Winds of up to 230 kilometers per hour were a key design consideration, requiring the structure to be engineered to withstand immense lateral and uplift forces. The strategic use of steel sections, including UB beams and channels, enabled the creation of a structure that could safely resist these extreme loads.

Careful attention to connection detailing was crucial to the success of this project. The engineers designed the joints to be three times stronger than the minimum required, ensuring a robust and reliable load transfer throughout the structure. This included the use of thick gusset plates and fin plates to distribute shear forces, as well as the incorporation of chemical anchors to address the substantial uplift loads, particularly at the rear of the structure.

The project's location in the Dominican Republic also presented logistical challenges. The decision was made to fabricate the 230 tons of steelwork locally, rather than importing it from the United States as originally planned. This decision, driven by the difficulty of securing American contractors to work over the holiday season, demonstrated the adaptability of steel construction. The local fabricator, Codamon, was able to produce the high-quality steel components on-site, showcasing the versatility of steel and the skill of the local workforce.

One of the most impressive aspects of this project was the speed of execution. From the initial purchase order to the final commissioning, the entire process was completed in just over five months – an astounding feat given the scale and complexity of the undertaking. This rapid timeline was made possible by the inherent advantages of steel construction, including the ability to pre-assemble sections off-site and the ease of making adjustments and additions during the erection process.

The strategic use of steel in this project, combined with the impressive engineering and construction feats, resulted in a structure that not only met the functional requirements but also stood as a testament to the capabilities of steel as a building material. The conveyor's ability to withstand hurricane-force winds and seismic activity, while maintaining a sleek and efficient design, is a true testament to the ingenuity and skill of the engineering team.

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MEMBERSHIP SERVICES MANAGER

WAYDENE VAN STAVEL
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PROJECT TEAM

Province: Gauteng
Nominator: Ferro Eleganza
Main Contractor: WBHO Construction
Steelwork Contractor: Ferro Eleganza
Architect: Paragon Architects
Structural Engineer: Sotiralis Consulting Engineers
Steel Detailer: CND Structural Services
Cladding Manufacturer/Cladding Roll Former: Rheinzink
Cladding/Roofing Supplier: Safintra South Africa
Cladding/Roofing Contractor: Chartwell Roofing

ARCHITECTURE CATEGORY COMMENDATION

For complete project overview refer to pages 50-51.

Eastgate Solar Phase 2

PROJECT TEAM

Province: Gauteng
Nominator: Cadcon
Main Contractor: Concor Construction
Steelwork Contractor: Cadcon
Architect: Batley Partners
Structural Engineer: Zutari
Steel Merchants:
Macsteel / BSI Steel / Allied Steelrode / Garsin
Steel Detailer: Structech Detailers / Mondo Cane
Painting Contractor: IPS Painting & Mobile Sandblasting

INNOVATION & SUSTAINABILITY CATEGORY WINNER, TUBULAR CATEGORY COMMENDATION

For complete project overview refer to pages 41-42.

Clairwood

PROJECT TEAM

Province: Kwazulu-Natal
Nominator: RSB Contracts
Main Contractor: WBHO Construction
Steelwork Contractor: RSB Contracts
Architect: ICM Architectural Studio
Structural Engineer: Sotiralis Consulting Engineers
Steel Detailer: RSB Contracts
Cladding/Roofing Contractor: Browndeck Roofing

Ferox

PROJECT TEAM

Province: Kwazulu-Natal
Nominator: Build 26-6
Main Contractor: QSB Construction
Steelwork Contractor: Build 26-6
Architect: Urbis Architects
Structural Engineer: Fikra Consulting Engineers
Steel Merchants: Trumod

Harvey Thatch - Skukuza - Kruger National Park

PROJECT TEAM

Province: Mpumalanga

Nominator: Harvey Roofing Products

Main Contractor: Riendzo Renene Group / Ntlemo Projects

Steelwork Contractor:
Riendzo Renene Group / Ntlemo Projects

Architect: kwpCREATE Architects

Structural Engineer: kwpCREATE Architects

Cladding Manufacturer: Harvey Roofing Products

Cladding Roll Former: Harvey Roofing Products

Cladding/Roofing Supplier: Harvey Roofing Products

Cladding/Roofing Contractor:
Riendzo Renene Group / Ntlemo Projects

INNOVATION & SUSTAINABILITY / METAL CLADDING CATEGORY COMMENDATION

For complete project overview refer to pages 33-34.

Lusaka Commercial Cold Store

PROJECT TEAM

Nominator: JTC Building Systems

Main Contractor: Stefanutti Stocks, Zambia

Steelwork Contractor/Steel Detailer:
JTC Building Systems

Architect: Anderson and Anderson

Structural Engineer: KLS Consulting Engineers

Steel Merchants: Allied Steelrode

Cladding Manufacturer/Cladding Roll Former:
Safintra South Africa / Namibia

Painting Contractor: IPS Painting & Mobile Sandblasting

Kathu Epiroc

PROJECT TEAM

Nominator: WSP Group Africa

Main Contractor: BC Builders

Steelwork Contractor: East End Construction

Architect: Cube Architects

Structural Engineer: WSP Group Africa

Steel Detailer: Macsteel / DIY Superstore / BSI Steel

Cladding Manufacturer/Roll Former/Roofing Supplier:
Global Roofing Solutions

Cladding/Roofing Contractor: Beacon Plate

Malvern Park Shopping Centre

PROJECT TEAM

Province: Kwazulu-Natal

Nominator: Arup

Main Contractor: WBHO Construction

Steelwork Contractor: Avellini Bros

Architect: TCRPV Architects

Structural Engineer: Arup

Steel Merchants: Garsin Steel Tube and Pipe / Tubecon

Steel Detailer: Structech 3D Modelling

Cladding Manufacturer: Viva Composite

Cladding Roll Former: City Glass & Aluminium

Cladding/Roofing Supplier: City Glass & Aluminium

Cladding/Roofing Contractor: City Glass & Aluminium

Mogale Tailings Retreatment Project

PROJECT TEAM

Province: Gauteng
Nominator: Betterect
Main Contractor: Betterect
Steelwork Contractor: Betterect
Architect: Betterect
Structural Engineer: Betterect
Steel Merchants: Allied Steelrode / Macsteel / BSI Steel
Steel Detailer: Betterect

MINING & INDUSTRIAL CATEGORY COMMENDATION

For complete project overview refer to pages 61-62.

Mother Of Mercy Shrine

PROJECT TEAM

Province: Gauteng
Nominator: Pro Roof / Tass Engineering
Main Contractor: Gaudi Construction
Steelwork Contractor: Tass Engineering
Architect: Perception Architects
Structural Engineer: BSM Baker Consulting Engineers and THS Consulting Engineers
Steel Merchants:
BSI Steel / Tubecon / Clotan Steel / Steel Bank / Alliedsteelrode / GK Steel / Macsteel Tubing / Stewarts & Lloyds
Steel Detailer: 3D Con Steel Detailing
Cladding Manufacturer: ArcelorMittal South Africa
Cladding Roll Former: Pro Roof Pretoria
Cladding/Roofing Supplier: Pro Roof Pretoria
Cladding/Roofing Contractor: PA Steel Structures

TUBULAR CATEGORY & GAUTENG REGION WINNER

For complete project overview refer to pages 54-55.

Nelson Mandela Cruise Terminal

PROJECT TEAM

Province: Kwazulu-Natal
Nominator: Elphick Proome Architecture
Main Contractor: Steffanuti Stocks Building KZN
Steelwork Contractor: Avellini Bros.
Architect: Elphick Proome Architects
Structural Engineer: Arup
Steel Merchants: Macsteel / Allied Steelrode
Steel Detailer: Avellini Bros
Cladding Manufacturer: EQUITONE® Façade Solutions
Cladding Roll Former: EQUITONE® Façade Solutions
Cladding/Roofing Supplier: MRC Group
Cladding/Roofing Contractor: MRC Group

KWAZULU-NATAL REGION WINNER

For complete project overview refer to pages 69-70.

New Science Centre at NMU

PROJECT TEAM

Province: Port Elizabeth
Nominator: SVA International
Main Contractor: WBHO Construction
Steelwork Contractor: Uitenhage Super Steel
Architect: SVA International
Structural Engineer: Bosch Projects
Steel Detailer: Tekla Structures
Cladding Manufacturer: Safintra South Africa
Cladding Roll Former: Safintra South Africa
Cladding/Roofing Supplier/Cladding/Roofing Contractor: Safintra South Africa

ARCHITECTURE CATEGORY WINNER
TUBULAR CATEGORY COMMENDATION
EASTERN CAPE REGION WINNER

For complete project overview refer to pages 48-49.

Patel Hardware, Riverside Industrial Warehouse

PROJECT TEAM

Province: Mpumalanga
Nominator: Global Roofing Solutions
Main Contractor: Ikotwe Construction
Architect: Ianua Consulting
Structural Engineer: Endecon Ubuntu

Redstone Concentrated Solar Power

PROJECT TEAM

Province: Northern Cape
Nominator: Cadcon
Main Contractor: SEPCOIII
Steelwork Contractor: Cadcon
Structural Engineer: SEPCOIII
Connection Design EDS Engineering
Steel Merchants: Macsteel / BSI Steel / Allied Steelrode
Steel Detailer: Mondo Cane

INNOVATION & SUSTAINABILITY CATEGORY COMMENDATION
NORTHERN CAPE REGION WINNER

For complete project overview refer to pages 43-44.

Pueblo Viejo - New CV120 Stockpile Feed Conveyor

PROJECT TEAM

Nominator: Resultant Consulting Engineers
Main Contractor: CODEMON
Structural Engineer: Resultant Consulting Engineers
Steel Merchants: EYMAQ
Steel Detailer: Robert Whiteman

ENGINEERING EXCELLENCE COMMENDATION

For complete project overview refer to pages 78-79.

Riversands Pedestrian Bridge

PROJECT TEAM

Province: Gauteng
Nominator: WSP Group Africa
Main Contractor: Armadura Construction
Steelwork Contractor: Ferro Eleganza
Architect: WSP Group Africa
Structural Engineer: WSP Group Africa
Steel Merchants: Macsteel

Shoprite Checkers Warehouse Riverfields

PROJECT TEAM

Province: Gauteng
Nominator: Stewarts & Lloyds / B&T Steel
Main Contractor: Abbeydale
Steelwork Contractor: B&T Steel
Architect: Empowered Space Architects
Structural Engineer: DG Consulting Engineers
Steel Merchants:
Stewarts & Lloyds / Macsteel / BSI Steel / Clotan
Steel Detailer: CND Structural Services
Painting Contractor: IPS Painting & Mobile Sandblasting

FACTORY & WAREHOUSE CATEGORY WINNER

For complete project overview refer to pages 24-25.

Talama Heights

PROJECT TEAM

Province: Northern Cape
Nominator: Adistra Manufacturing
Main Contractor: Adistra Prop + Manufacturing
Steelwork Contractor: Adistra Manufacturing
Architect: A4Ac Architects
Structural Engineer: Innostruc
Steel Merchants: Trumod
Steel Detailer: Innostruc
Cladding Manufacturer: Terraco Product
Cladding Roll Former: Adistra Manufacturing
Painting Contractor: Skyworx

Takealot DC The Brickworks by Investec

PROJECT TEAM

Province: Kwazulu-Natal
Nominator: Cousins Steel International
Main Contractor: Abbeydale Construction
Steelwork Contractor: Cousins Steel International
Architect: Empowered Spaces
Structural Engineer: SiVest
Steel Merchants: Macsteel / Allied Steelrode / Roofco
Steel Detailer: Cousins Steel International
Cladding Manufacturer: Safal Steel
Cladding Roll Former/Roofing Supplier:
Macsteel Roofing
Painting Contractor: IPS Painting & Mobile Sandblasting
Cladding/Roofing Contractor: Tate & Nicholson

FACTORY & WAREHOUSE CATEGORY COMMENDATION

For complete project overview refer to pages 27-28.

TFG Terminal Park

PROJECT TEAM

Province: Gauteng
Nominator: RSB Contracts
Main Contractor: Ndwala Construction
Steelwork Contractor: RSB Contracts
Architect: Boogertman + Partners
Structural Engineer: EKCON
Steel Detailer: RSB Contracts
Cladding/Roofing Contractor: Chartwell Roofing

TSSA Factory - Thai Summit SA Factory

PROJECT TEAM

Province: Gauteng
Nominator: EDS Engineering Design Services
Main Contractor: Trencon Construction
Steelwork Contractor:
Cadcon Steel Construction and Engineering
Architect: TCRPV Architects
Structural Engineer: EDS Engineering Design Services
Steel Merchant BSI Steel
Steel Detailer: Mondo Cane
Cladding Manufacturer: BlueScope
Cladding Roll Former: Macsteel Roofing
Cladding/Roofing Supplier: Macsteel Roofing
Cladding/Roofing Contractor: Ferrum Trading

Varsity College Pretoria - New Classrooms

PROJECT TEAM

Province: Gauteng
Nominator: Global Roofing Solutions
Main Contractor: JC Van Der Linde & Venter Projects 8GB
Steelwork Contractor: Quality Steel Projects
Architect: Boogertman + Partners
Structural Engineer: CKR Consulting Engineers
Cladding Manufacturer/Roll Former:
Global Roofing Solutions
Painting Contractor: IPS Painting & Mobile Sandblasting
Cladding/Roofing Supplier: Global Roofing Solutions
Cladding/Roofing Contractor: Quality Steel Projects

Value Logistics

PROJECT TEAM

Province: Gauteng
Nominator: RSB Contracts
Main Contractor: JC Van de Linde & Venter
Steelwork Contractor: RSB Contracts
Architect: Marek Lyzwa Architechts
Structural Engineer: BSM Baker Consulting
Steel Detailer: RSB Contracts
Cladding/Roofing Contractor: Chartwell Roofing

Virta - 11 off Belt Feeders for a Copper Mining Project in Chile

PROJECT TEAM

Nominator: Viva Engineering
Main Contractor: VIRTA USA
Steelwork Contractor: Viva Engineering
Architect: VIRTA USA
Structural Engineer: VIRTA USA
Steel Merchants:
Allied Steelrode / Macsteel / Stewarts & Lloyds
Steel Detailer: Viva Engineering

SAISC OVERALL WINNER
MINING & INDUSTRIAL CATEGORY WINNER
BEST EXPORT PROJECT

For complete project overview refer to pages 14-20.

VUP - Surface Conveyors

PROJECT TEAM

Province: Limpopo

Nominator: Louwill Engineering

Main Contractor: Louwill Lefa

Steelwork Contractor: Louwill Lefa

Architect: Worely & BMH Africa

Structural Engineer: BMH Africa Engineers

Steel Merchants: Allied Steelrode / GK Steel / Banella / Macsteel /Khuthala Steel / BSI Steel / Stewarts & Lloyds

Steel Detailer: PCSA Structural Steel Detailers

Cladding Manufacturer, Cladding Roll Former, Cladding/Roofing Supplier: Global Roofing Solutions

Cladding/Roofing Contractor: Louwill Lefa

Weelee Centurion

PROJECT TEAM

Province: Gauteng

Nominator: Macsteel Roofing

Main Contractor: B&T Steel

Steel Architect: M&T Development

Cladding Manufacturer: Macsteel Roofing

Cladding Roll Former: Macsteel Roofing

Painting Contractor: IPS Painting & Mobile Sandblasting

Cladding/Roofing Supplier: BlueScope Steel

Cladding/Roofing Contractor: Ferrum Trading

METAL CLADDING CATEGORY WINNER

For complete project overview refer to page 31-32.

Wells Estate Shoprite

PROJECT TEAM

Province: Port Elizabeth

Nominator: WSP Group Africa

Main Contractor: WBHO Construction

Steelwork Contractor: Uitenhage Super Steel

Architect: Empowered Spaces

Structural Engineer: WSP Group Africa

Steel Merchants: Macsteel / Stewarts & Lloyds / NJW / Allied Steelrode / Pro Roof

Steel Detailer: 3DCon

Cladding Manufacturer: ArcelorMittal / Bluescope Steel

Cladding Roll Former: Safintra South Africa

Cladding/Roofing Supplier: Safal Steel / Bluescope Steel

Cladding/Roofing Contractor: Chartwell Roofing

FACTORY & WAREHOUSE CATEGORY COMMENDATION

For complete project overview refer to page 26.

West Chimney Repairs and Related Works at Kusile Power Station

PROJECT TEAM

Province: Mpumalanga

Nominator: Concor Construction

Main Contractor: Concor Construction

Steelwork Contractor: Domento Mechanical Services

Structural Engineer: ICC Commonwealth

Steel Detailer: Bekker Steel

MINING & INDUSTRIAL CATEGORY COMMENDATION

For complete project overview refer to pages 63-64.

YFPO - Yanfeng Plastic Omnium Paintline Facility Project

PROJECT TEAM

Province: Gauteng

Nominator: EDS Engineering Design Services

Main Contractor: WBHO & Trencon Joint Venture

Steelwork Contractor:
Cadcon Steel Construction & Engineering

Architect: TCRPV Architects

Structural Engineer: EDS Engineering Design Services

Steel Merchants:
BSI Steel / Macsteel /
Stewarts & Lloyds / Allied Steelrode

Steel Detailer: CND Structural Services

Cladding Manufacturer: BlueScope

Cladding Roll Former: Macsteel

Cladding/Roofing Supplier: Macsteel

Cladding/Roofing Contractor: Tate & Nicholson

Zululami House

PROJECT TEAM

Province: Kwazulu-Natal

Nominator: Build 26-6

Main Contractor: JHC Projects

Steelwork Contractor: Build 26-6

Architect: LevEco Architects

Structural Engineer: Barry Kriel Consulting

Steel Detailer: Trumod

LIGHT STEEL FRAME CATEGORY WINNER

For complete project overview refer to pages 37-38.

Zambian Brewery Expansion

PROJECT TEAM

Nominator: JTC Building Systems

Main Contractor: BIZ

Steelwork Contractor:
JTC Building Systems / CIS Engineering JV

Architect: Royal Hoskoning DHV

Structural Engineer: Bara Consult

Steel Merchant: Allied Steelrode

Cladding Manufacturer: Safintra South Africa / Namibia

Cladding Roll Former: Safintra Namibia

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