COVERING THE WORLD OF CONSTRUCTION

JUNE 2025

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Construction WORLD

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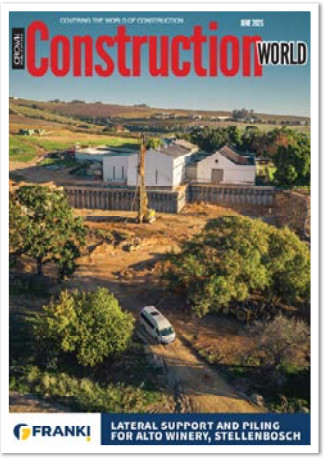
ON THE COVER

Franki Africa's lateral support and piling for the Alto Winery is on the cover. The article is on page 16. In addition, there is a second Franki Africa project on page 18. This was for the ground improvement for deep soft soils in Durban. This project presented a range of geotechnical challenges due to the site's complex and highly variable ground conditions.

Turn to page 16



South Africa's 2025 national budget, presented by Finance Minister Enoch Godongwana, outlines the government's fiscal strategy amid economic challenges. While the budget addresses various sectors, its impact on the construction industry is particularly noteworthy.

The government has committed to significant infrastructure spending, focusing on areas such as transportation, energy, and housing. This investment aims to stimulate economic growth and job creation. Notably, Cape Town has announced plans to invest R39,7-billion over three years, aiming to create approximately 130 000 construction-related jobs.

To address operational challenges in state-owned enterprises, the government has approved a R51-billion guarantee facility for Transnet. This support is intended to enhance the modernisation of South Africa's rail and port infrastructure, which is crucial for the construction sector's supply chain.

The proposed increase in the Value-Added Tax (VAT) rate was reversed following political pushback. This decision helps maintain consumer spending power but results in a projected revenue shortfall of approximately R75-billion over the medium term. The government plans to address this gap through spending cuts and stronger-than-expected tax revenues.

The tabled budget has various positive impacts for the construction industry. The most important is that there will be increased spending as the government's commitment to infrastructure investment is expected to boost demand for construction services, providing opportunities for growth in the sector.

In a country with rampant unemployment, the construction industry, one of the largest job creating sectors will create a significant number of jobs. Initiatives like Cape Town's infrastructure plan are set to create a significant number of construction-related jobs, contributing to employment and skills development.

The budget also aims to modernise transport infrastructure as it offers support for Transnet's modernisation efforts to improve the efficiency of logistics and supply chains, benefiting construction projects.

There will, however, be fiscal constraints. The reversal of the VAT increase and the resulting revenue shortfall may lead to spending cuts in other areas, potentially affecting funding for construction projects. Ongoing economic challenges, including high unemployment and constrained electricity supply, could also impact the construction sector's performance.

The 2025 national budget presents both opportunities and challenges for South Africa's construction industry. While increased infrastructure investment and support for state-owned enterprises are positive developments, fiscal constraints and economic uncertainties may pose risks. Stakeholders in the construction sector will need to navigate these dynamics to capitalise on emerging opportunities while mitigating potential challenges.

BEST PROJECTS
2025
TWENTY - FOURTH

A reminder to enter your standout project for the annual Best Projects awards which has been recognising excellence in the execution of projects for the past 24 years. Turn to page 12 for an overview of the awards. The electronic entry forms can be downloaded from the magazine's website or contact me. Good luck.

Wilhelm du Plessis
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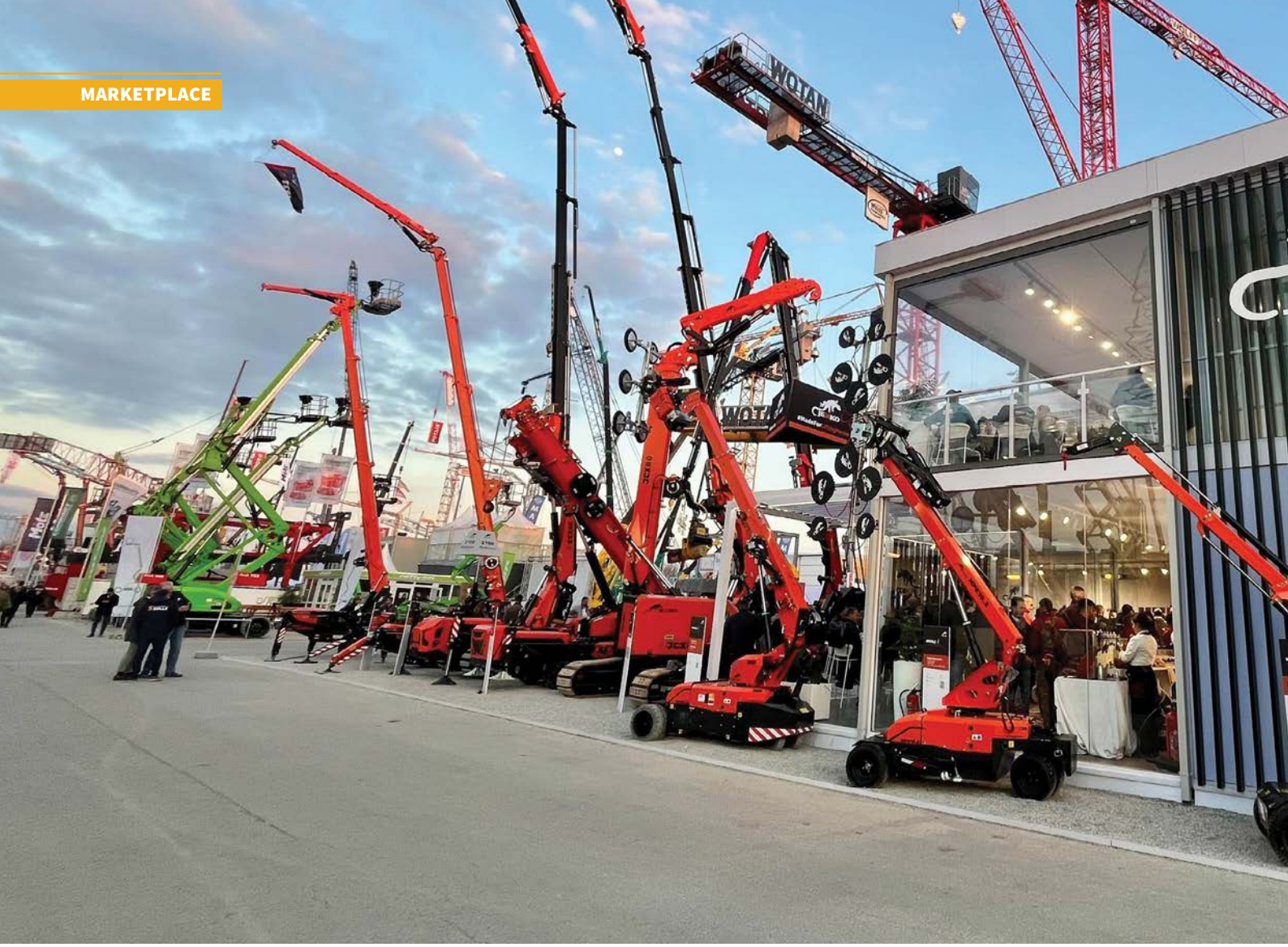


Bauma 2025 highlights global shift TOWARD ELECTRIFICATION

bauma 2025, the world's leading annual trade fair in the construction industry, took place in April in Munich, Germany, drawing about 600 000 visitors from more than 200 countries. The event hosted approximately 3 600 exhibitors who showcased the latest in construction and mining technology.

One of the standout themes at this year's event was electrification, with a strong push toward battery-operated machinery across the industry. This marks a major shift in large-scale access, handling and lifting equipment. Expanding beyond smaller scissor lifts to large booms and telehandlers proves that even the largest and most demanding equipment can now be powered by electricity. Advancements in lithium battery technology are enabling larger equipment to operate efficiently, reducing maintenance costs and improving sustainability.

Improving longevity and operational efficiency

Across all manufacturers, there was a strong focus on improving longevity and operational efficiency with battery-powered machinery and technological advancements that included smart fleet management and automation. Additionally, manufacturers showcased operator-centric designs that enhance comfort, ergonomics and safety.

For South Africa, these innovations present both challenges and opportunities. While initial capital costs may be high, electrification aligns with lower emissions, reduced maintenance and improved workplace safety, which are all critical factors for mining and large-scale industrial operations.

While South Africa lags behind Europe in sustainability and safety regulations, this gives local businesses an interesting advantage with the ability to observe European trends and selectively introduce technologies ahead of local regulations, particularly for safety-conscious industries like mining and heavy construction. Larger customers appreciate early access to these advancements, even in the absence of legal mandates.

Bringing global innovation closer to home

South African access, lifting and handling equipment

supplier SkyJacks attended bauma 2025 to observe these trends firsthand and engage with the international OEMs it represents locally. Four of these OEMs; Italy's Jekko and Faresin, Germany's GEDA and China's Dingli—demonstrated innovations that not only reflect the electrification trend but also offer real-world, practical value.

"It was clear from bauma that the global industry is fully embracing the transition to cleaner, smarter equipment," said Alistair Bennett, Managing Director at SkyJacks. "And what excites us is how well these innovations align with the needs of the South African market."

Jekko unveiled two compact, highly manoeuvrable cranes; the JCX80 telescopic crawler crane and the TRX32 truck-mounted crane—built for tight urban or industrial spaces where conventional cranes are impractical. This kind of precision lifting is highly relevant in congested urban construction and complex industrial environments common in South Africa.

Faresin debuted its FS range of telehandlers, including a fully electric 17-metre, 4-tonne unit—marking a new milestone in the scalability of electric machinery. These machines offer intuitive controls, enhanced energy efficiency and upgraded operator cabs, ideal for reducing emissions without compromising performance.

GEDA, known for construction hoists and industrial elevators, showcased models that prioritise safety and reduce manual handling; from the compact 200Z Comfort scaffolding hoist to the powerful 3700ZZP, capable of lifting nearly three tonnes up to 200 metres. Notably, GEDA's new SH250W battery-powered hoist, designed for wind turbine interiors, signals a direct intersection between lifting tech and renewable energy.

Dingli presented its full T-series of boom lifts available in diesel, hybrid and fully electric options up to 44 metres, underscoring that even high-reach platforms are embracing electrification.

Streamlining training and troubleshooting through digitalisation

Another major theme was digitalisation. GEDA's new digital platform—GEDA Central—introduces remote diagnostics, fleet management and virtual reality training to streamline operator education and equipment maintenance. In a country like South Africa, where job sites can be remote and resources stretched, the ability to offer remote retraining and real-time support is a game changer.

Transforming industries through incremental change

The economic implications of adopting cutting-edge international technologies for Southern African markets are also clear, as the right machinery doesn't just enhance operations, it transforms them. Electrification and smart technology are reshaping infrastructure development by accelerating project timelines and optimising costs. Faster material movement, whether vertical or horizontal, reduces delays and ultimately saves money.

Competitiveness is another key factor. As labour costs rise, businesses must find ways to improve productivity and reduce inefficiencies. Access to advanced equipment enables industries from mining to logistics, to stay globally competitive. Even small technological upgrades can yield major operational gains. "The path forward doesn't mean replacing your entire fleet overnight," Bennett added. "It's about smart, progressive upgrades that build value over time."

Perhaps this is the most compelling takeaway from bauma 2025, that transformation doesn't require an overnight overhaul. It's the sum of many small decisions: replacing a diesel lift with a hybrid one, implementing remote diagnostics, or adopting more ergonomic operator controls. Each step, though incremental, contributes to a more efficient, safer and future-ready operation.

While widespread adoption in specific sectors internationally may still take time, the momentum is there. With industries like construction, logistics and mining increasingly relying on advanced equipment, the shift toward digital platforms for training and fleet management is inevitable. The challenge will be scaling these technologies across smaller machines while ensuring they integrate seamlessly into existing workflows. South Africa stands to benefit from early adoption, especially in sectors like mining and infrastructure, where minimising downtime and maximising productivity are key drivers.

bauma 2025 confirmed the global shift toward electrification, smarter fleet management and digital integration. With proactive local partners, South Africa's lifting, access and industrial machinery sector is well positioned to align with international standards, drive innovation, and ensure long-term industry competitiveness. ⊙

Phyllis Ndlovu, Founder and CEO of Kisima Psychological Services.

EQ and the journey towards EFFECTIVE LEADERSHIP

Research has shown there is a direct correlation between emotional intelligence and effectiveness on all levels: professionally, socially and in leadership roles. The journey towards being an effective leader and colleague begins at an individual and personal level, writes ***Phyllis Ndlovu, Founder and CEO of Kisima Psychological Services.***

One of the reasons why many leaders in South Africa, and globally, do not have healthy or adequate emotional intelligence is that more often than not, people get promoted into leadership positions because they are good at what they do or are subject matter experts, and not because they have proven leadership skills.

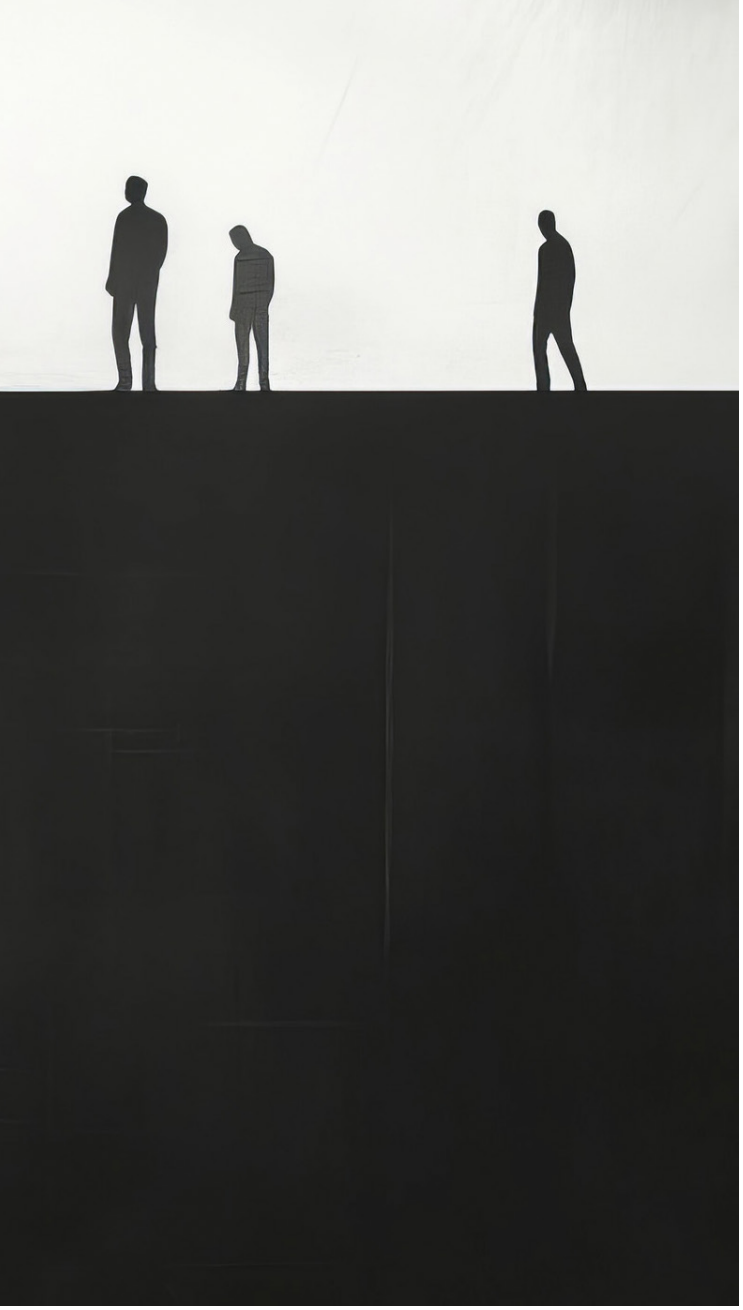
So, engineers become operational directors, or accountants become financial directors. Many have to learn leadership skills on the job and emotional intelligence does not necessarily come naturally to them.

Ultimately, leadership is about being a custodian of different elements of an organisation: people, processes and performance, as well as stakeholder relationships. Those without adequate emotional intelligence can compromise the quality of how the organisational ecosystem functions.

Self-regulation for healthy work environments

In the corporate world, emotional intelligence refers to a leader's ability to self-manage and self-regulate so that they can promote a constructive work environment. When leaders do not adequately manage their responses to the people or occurrences that trigger them, they can have an adverse impact on their corporate environments.

For example, if leaders are triggered by people who



over-explain things, but are not aware of this, the way they respond to the over-explainers may not be in a measured or sustainable way and this could undermine the health of those relationships.

Humanising self and others

If leaders are going to navigate different elements of the organisation effectively, they have to show up in a manner that demonstrates they are worthy of their custodianship role. This means they have to engage in a balanced way and create enabling operational environments. As neuroscience shows, such engagement will enable teams to feel humanised and, in turn, those teams will feel invested in shared outcomes and therefore travel more effectively with their leaders.

Leaders with adequate emotional intelligence are also able to make decisions without being clouded by emotion. Corporate environments today are characterised by several competing priorities: everything is due today and people are under constant pressure. It is an acquired skill to recognise the pressure and ask yourself: how do I optimise my decision-making capacity, even when I am constantly under pressure?

Tools for developing emotional intelligence

The starting point for leaders to develop their emotional intelligence is by becoming more self-aware and cognisant of the impact they have on their colleagues. Some of the main developmental areas they need to explore include: relationship with self; accountability partnerships and focusing on what they can control.

Self-reflection – generally speaking, we are not socialised to pause and reflect as a society, especially in the corporate world. When leaders deliberately invest time in personal reflection, they improve their relationships with themselves and enhance how they show up every day.

As a starting point, leaders should set aside some time each week or month to consider their experiences in their leadership roles: what has triggered them; what has hindered them; what has brought them joy/relief; and what has evoked certain responses. By doing so, they hold up a private mirror to themselves, which allows them to identify trends and, ultimately, gives them an opportunity to self-regulate and self-manage.

Although self-reflection can initially be difficult, the gift of neuroscience is that the brain's neuroplasticity allows people to live through an uncomfortable activity and emerge on the other side of that discomfort with new insights and even learn new skills or embrace new ways of seeing the world.

Accountability partners – leaders should consider identifying an accountability partner to check in with regularly. This is a person whose opinion and intent they trust. Accountability partners can be a coach, mentor or person the leader looks up to. This person must play the role of supporting the leader in staying committed to their goal of self-improvement. Neuroscience has proved that when people have someone they are accountable to, their capacity to achieve their chosen goals is enhanced.

Focus on what you can control – often when we are under pressure, we tend to focus on everything that needs our attention in an attempt to adequately crisis manage. However, the brain does not thrive when equal priority is afforded to several different challenges simultaneously. It tends to go into survival or self-preservation mode. It is advisable to take a step back and evaluate how to allocate mental energy in an optimal way. It takes some discipline to say: "amongst these priorities, what requires immediate attention; and what can I control, not control?"

Leaders should choose the priorities they have full autonomy over and focus on those. In this way, they create efficiencies for themselves and those around them.

We all have finite units of neural energy per day, which is distributed across all of our physical and mental activities, as well as our decision-making capacity and the choices we make. While most of our neural energy goes to automated activities such as breathing and digestion, leaders need to be intentional about how they use, deplete or redirect the energy they have control over.

Setting the tone for others to show up

When leaders adopt some of the above practices and model emotional intelligence for their teams, they set the tone for others to show up, to be invested in their mutual outcomes and, ultimately, emulate the behaviour of their leader. ⊙

GROUP ACQUIRES MASCOR'S JOHN DEERE DEALERSHIPS IN KZN AND THE LOWVELD

AFGRI Group is proud to announce the successful acquisition of the John Deere dealerships previously operated by MASCOR across KwaZulu-Natal and the Lowveld regions of South Africa.

AFGRI Group is a leading diversified agribusiness organisation with a proud history dating back to1923. Today, the company is comprised of large, specialised and complementary business units offering a full range of products, services and solutions across the industry.

The acquisition marks a significant milestone in the AFGRI Equipment Business Unit's growth journey. It reaffirms AFGRI Equipment's commitment to delivering exceptional service and value to customers in key areas and its role in the development and success of the John Deere brand in South Africa.

"The AFGRI Group continues its journey towards growing and scaling its core business units and value propositions to position itself as a long-term strategic partner to its core customers. We are therefore grateful and proud of this exciting expansion and look forward to building on the proud legacy created by MASCOR, said Norman Celliers, Group Executive Officer of the AFGRI Group of Companies.

MASCOR has a proud legacy of 57 years of service to farmers and customers in these regions. AFGRI Equipment acknowledges this remarkable history and is honoured to build upon it, ensuring a seamless continuation of service excellence, trusted relationships, and local expertise. Going forward, AFGRI Equipment is focused on delivering even greater value by:

- Deepening customer engagement and understanding operational needs.
- Providing expert advice and practical solutions tailored to each customer.
- Minimising downtime through well-trained, equipped, and motivated teams.
- Ensuring consistent support to improve customer productivity.

All directly related former MASCOR employees officially became part of the AFGRI Equipment team on 7 April 2025 and are already operating under the new banner with enthusiasm and commitment. Heading up operations in the region is Jacques Stander, a seasoned industry leader with 28 years of experience in the equipment sector. His knowledge and leadership will be instrumental in guiding the team forward. "We are incredibly excited to welcome the former MASCOR staff to the AFGRI Equipment team," said Patrick Roux, Managing Director of AFGRI Equipment. "Their history of dedication and service sets a strong base as we look ahead to new opportunities and greater impact."

AFGRI Equipment further wishes to thank customers for their continued support and patience during the transition. A series of regional roadshows are currently being planned to meet with customers in person to build relationships and share more insight about the journey ahead.

"We wish Jacques and AFGRI Equipment the greatest of success in serving an immensely proud John Deere customer base and look forward to the continued journey as both a customer and supplier. We sincerely thank staff for their utmost dedication during this transition period and are confident in the new opportunities and successes that will be delivered with the AFGRI Equipment team," said Colin Corbishley, Non-Executive Director of MASCOR.

The acquisition includes the John Deere agriculture, homeowner turf and construction and forestry dealerships in the following regions:
Winterton, Newcastle, Vryheid, Underberg, Pietermaritzburg, Kokstad, Greytown, Dalton, Empangeni, Salt Rock, Port Shepstone, Nelspruit and Komatipoort.

SA TO HOST GLOBAL ENGINEERING INDUSTRY'S ANNUAL GATHERING

The world's leading engineers and construction industry professionals are set to gather in South Africa, from 21-23 September 2025 when the international engineering federation FIDIC (the International Federation of Consulting Engineers) holds its annual Global Infrastructure Conference in Cape Town.

FIDIC represents the global consulting engineering industry and is responsible for promoting the business interests of global firms supplying technology-based intellectual services for the built and natural environment. FIDIC's membership counts around 100 national associations across the globe and represents more than one million engineering professionals and 40 000 firms. The buildings and infrastructure sector in which FIDIC members work contributes over US$36trillion to global GDP and many hundreds of professionals from the sector will be coming to Cape Town in September for this flagship industry event.

The conference theme this year is a very topical one. Smart Infrastructure: Equality, Resilience and Innovation for a Sustainable World will set the framework for some essential and timely discussions on the future of infrastructure and how it will be delivered in a changing world. The conference will bring together a high-profile line-up of expert speakers, global influencers, industry experts and sector leaders together in one place for three days of discussion, debate, and networking.

As well as being the flagship annual event for the international consulting engineering sector, FIDIC's Global Infrastructure Conference is also the organisation's annual gathering for its international member associations and Cape Town is expected to welcome FIDIC members from around 100 countries. It's also extra fitting that the 2025 conference is hosted in Cape Town as the G20 presidency is handed over to South Africa, with a theme for the year around fostering solidarity, equality and sustainable development. "There really could be no better time or place for the infrastructure sector to meet and show its excellence, integrity and significance in shaping a better tomorrow for all and we are delighted to be bringing our crucial industry to South Africa for this important event," said FIDIC's president Catherine Karakatsanis.

Key discussions and sessions at the conference include The politics of infrastructure, where local and global political leaders will be invited to present their views, challenges and opportunities for the sector. A session on how best to deliver infrastructure for society, equality, climate and nature and an essential discussion on How to finance infrastructure with rising debt examining some of the issues around how the infrastructure sector unlocks new and existing money for projects from the local level right through to major regenerations. The conference will also discuss the key role of leadership in a session entitled Delivering infrastructure with integrity, quality and sustainability - leading by example to deliver a better society.

Delegates at the event will also have the opportunity to sample some of the amazing and diverse culture of Cape Town and South Africa itself during this landmark industry event which will host the cream of the world's engineering, construction and infrastructure businesses. It's an industry event not to be missed and the eyes and ears of the engineering world will certainly be trained on Cape Town this September. ⊙

cidb ERWIC AWARDS ENTRIES NOW OPEN

Construction Industry Development Board (cidb) has officially opened the entries for the highly anticipated 2025 Empowerment and Recognition of Women in Construction (ERWIC) Awards.

These prestigious annual awards celebrate innovation and leadership. They recognise women and organisations driving change in the South African construction industry. The awards highlight their best work over the past year. They also aim to inspire new standards for women as a powerful force in advancing gender equality.

"This year, we encourage all the women who've ever considered entering, all the trail blazers, the jet setters, the path finders and the change makers in our bustling and exciting industry to enter, cidb CEO Bongani Dladla states. "Showcase your passion, your hard work and inspire others by showing what it truly means to be #BuildingLikeAWoman," says Dladla .

The cidb ERWIC Awards have evolved significantly since inception, reflecting the expanding roles and contributions of women in the construction industry. "We believe these awards play a crucial role in transforming the face of our industry by recognising the exceptional contributions of women in construction," Dladla adds.

To participate, entrants must meet specific criteria, including being actively registered with the cidb, where applicable, disclosing their BBBEE status, and ensuring that projects entered into projects, business and individual categories are completed within the specified time frame. Projects must be from Southern African regions and completed between January 1, 2023, and December 31, 2024.

"We would like to encourage participants to start preparing their submissions, which will be judged through an externally audited adjudication process, ensuring transparency and fairness in the selection of winners," says Dladla.

The awards ceremony will take place in Gauteng on August 14, 2025, coinciding with Women's Month and emphasising the importance of female empowerment and recognition in the construction industry.

"We look forward to a fantastic year of quality entries that highlight the exceptional professionals we have in our industry. The cidb looks forward to celebrating with you!" concludes Dladla.

Entries are open until 28 May, 2025, and participants can find more information on entry guidelines and the Categories and Criteria on the cidb ERWIC Awards website https://erwicawards-cidb.co.za. ⊙

BCCEI DRIVES STABILITY AND STRUCTURE IN CIVIL ENGINEERING SECTOR

As South Africa intensifies its focus on infrastructure development to stimulate economic growth, the need for a robust and well-regulated civil engineering sector has never been more urgent. At the centre of this stability is the Bargaining Council for the Civil Engineering Industry (BCCEI) which plays a strategic role in fostering fair labour practices, ensuring compliance and enabling collaboration across all levels of the industry.

"The BCCEI exists to ease the administrative and regulatory pressures that employers and labour face so they can focus on delivering infrastructure," explains Lindie Fourie, Operations Manager at the BCCEI. "We manage key processes, provide clarity and offer a platform where both employers and employees can work together on fair enforceable labour standards."

This is achieved through six collective agreements that define everything from working conditions to retirement benefits. These legally binding frameworks eliminate the inconsistency that often undermines project efficiency, especially on public sector jobs. With recent amendments to the Wage and Task Grade and Conditions of Employment Collective Agreements now in effect, it is crucial that all parties familiarise themselves with the updates to maintain compliance.

The BCCEI's Dispute Resolution Collective Agreement allows for industry-specific arbitration, removing the need to approach general bodies like the CCMA. This streamlined sector-specific process enables timely resolution and prevents unnecessary project delays.

The BCCEI also plays a powerful enabling role in skills development. Its ability to engage with Sector Education and Training Authorities (SETAs) opens access to training grants and initiatives that are vital to tackling the ongoing shortage of technical skills. "We use our position to link decision-makers and industry players, driving conversations that result in practical action," says Fourie.

Ultimately, the BCCEI's impact extends well beyond its immediate stakeholders. By creating a stable labour environment, it supports infrastructure projects that improve public services, enable job creation and stimulate investment. "Our collective agreements bring structure, order and fairness. That's not just good for industry - it's good for the country," Fourie concludes. ⊙

BUILDING GENDER-INCLUSIVE WORK-PLACES IN SOUTH AFRICA

In 2025, South Africa stands at a pivotal juncture in its pursuit of gender equality. Recent amendments to the Employment Equity Act have introduced specific racial and gender-based targets across various industries, emphasising the need for equitable representation at all occupational levels. Despite progressive legislation, women continue to face systemic challenges in the workplace, including underrepresentation in leadership roles and persistent wage disparities.

The Broad-Based Black Economic Empowerment (B-BBEE) framework has played a critical role in encouraging companies to create space for women, not just on paper, but within boardrooms, project teams, and senior leadership.

And, while compliance is important, inclusion must be more than a numbers game. “There are businesses that have been driving this transformation long before it was mandated, not because it was required, but because it was the right thing to do. And, because it’s good business,” says Serisha Sirputh, Director at LDM, a Built Environment consultancy firm. “Women bring innovation, resilience, and a different kind of leadership to the table, especially in industries where they’ve historically been excluded.”

In the construction industry, where women have rarely had a seat at the table, companies like LDM are showing what’s possible when inclusion is intentional. With over 40 years of experience in the built environment sector and a workforce that is now 51% women, LDM has created pathways for female talent to grow, lead, and thrive … well beyond entry-level.

Sirputh shares five practical insights for companies that are serious about moving from intention to impact:

- **Build from the inside:** Supporting women’s career growth means more than just putting HR policies on paper - it’s about real investment in people. Suvarna Gayapershad joined LDM in 2012 as a junior construction project manager and, through consistent mentorship and development, has built a solid 12-year career in project management. Similarly, Bongiwe Mahlalela, who began as a construction project management intern, has continued to grow her career with the support of senior leaders, proof that an inclusive culture makes all the difference.
- **Encourage male allies:** Inclusion is a team effort. LDM’s male colleagues are actively involved in mentorship, advocacy, and culture-building. They understand the value of inclusion and the critical role they play in supporting and accelerating women’s growth.
- **Make success visible:** Normalising women in leadership means telling their stories, celebrating their wins, and challenging outdated norms. In March, LDM spotlighted many of its exceptional women on social media as part of its #WomenEmpowerment campaign, recognising achievements both publicly and internally to foster pride and inspiration across the organisation. The campaign run year-round, using Women’s Month as a launchpad, not a finish line.
- **Invest early:** Leadership development shouldn’t start at management level. Spot potential from the outset and nurture it with intention. Thameshnee Naidoo started at LDM as a student trainee and is now a Quantity Surveyor, demonstrating how early recognition and intentional investment can drive success.
- **Embed it into company culture:** Real inclusion isn’t a tick-box exercise; it’s a mindset embedded in how a business operates. At LDM, there’s buy-in from the top down, with a shared understanding of the value women bring to the organisation.

And that value is recognised across the board. Simonee Herbert began as a project administrator and, with LDM’s support, completed her bachelor’s degree in financial accounting. She now works in the Finance division as a junior accountant. Zama Mkize’s journey is equally inspiring - she started as a general office assistant and now serves as the company’s receptionist, testament to what’s possible in an inclusive and supportive environment.

As new legislation shines a spotlight on transformation, the challenge for businesses is not just to comply, but to lead. True inclusion demands more than policy, it requires intent, consistency, and a culture that values the contribution of every individual. “Inclusion is seen in how you hire, how you lead, how you listen,” says Sirputh. “If you want innovation, loyalty, and long-term performance, you need to create environments where women can do more than participate, they need to thrive.” ⊙

BEST PROJECTS 2025

TWENTY - FOURTH

Construction World's Best Projects showcases excellence in the South African building, civil engineering, supply and project management sectors. In its 24th year, the aim of ***Construction World's*** Best Projects is to recognise projects across the entire construction industry: from civil and building projects to professional services to specialist suppliers and contractors.

There are **SEVEN** categories in which to enter. Projects may be entered in several categories, provided they meet the prerequisites for entering each one, and meet the criteria.

This competition is by submission only – it is judged solely by what you submit – so it is essential to take careful note of the entry requirements.

JUDGING

A panel of independent judges from the construction industry has been appointed. These are Uwe Putlitz - a retired architect and construction project manager, Petra Devereaux, the executive director of the MBAWC, Hanlie Turner, a retired business development manager and Musa Shanagasa, former president of the MBSA.

Each criterion set out for the various categories will be scored out of 10 – with 10 being the highest score and one being the lowest. It is therefore VERY IMPORTANT that the entry address the criteria for the particular category it is entering.

If a criterion is not answered, it will be awarded a medium of five points.

In each category a 'Winner' is announced as well as a 'Highly Commended Award'. A 'Special Mention Award' may be given.

SPECIAL ISSUE

The December issue of Construction World is dedicated to the various winners and entries and is an overview of activity in the entire built industry during the past year.

Contact Erna Oosthuizen, the advertising manager, if you wish to advertise in this issue. Advertising here will associate your brand with excellence.

How to submit entries

- Each entry must to accompanied by the **completed entry form**, available from www.constructionworldmagazine.co.za or by requesting it from constr@crown.co.za.
- The maximum length for submissions is **2 000 words.**
- Each submission must clearly state which **category** is entered.
- **IMPORTANT** It is to the entrant's own advantage to address **ALL THE CRITERIA** as set out in the category being entered. If the criterion falls outside the scope of the contract, please state this. It is advantageous to use the criterion as subheader and then to address this directly.
- The written submission must be accompanied by up to **six high resolution** photographs with applicable captions.
- The photographs and copy must be submitted separately. The photographs must be .jpgs and the copy in Word (not PDF format).
- The submission must also contain a **summary of important project information** such as the client, main contract etc. – i.e. the professional team involved in the project.
- **Electronic submissions only.**

Prerequisites for entry

All the categories have the same prerequisites (unless otherwise stated). These are:

- Only South African civil and building projects that are executed by locally based companies.
- When a project was executed elsewhere in Africa, but executed by a South African based company, it is eligible to enter.
- Projects are eligible during the execution of the project and up to 18 months thereafter (within reason).
- Projects must be at least 50% complete at the time of entry.

Awards evening

Information about the format/venue and date of the awards evening will be available in July when there is more clarity with the situation around COVID-19.

Entry form available on
www.constructionworldmagazine.co.za
or by requesting it from constr@crown.co.za

Contact: For more information contact the editor, Wilhelm du Plessis, on 011 622 4770 or constr@crown.co.za

1 Category
Civil Engineering Contractors

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

2 Category
Building Contractors

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

3 Category
Civil Engineering and Building Contractors (outside South Africa)

- In addition to the common prerequisites, projects outside South Africa must be executed by a **South African** contractor.

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

4 Category
Specialist Contractors or Suppliers

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

5 Category
Consulting Engineers

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

6 Category
Architects

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

7 Category
The AfriSam Innovation Award for Sustainable Construction

Please address the following criteria:

- Construction innovation technology
- Corporate Social Investment
- Design innovation
- Environmental Impact Consideration
- Health & Safety
- Quantifiable time, cost and quality
- Risk management
- Motivation facts about the project

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Friday, 8 August 2025

THE ROLE OF IMPACT INVESTING IN CREATING POSITIVE SOCIAL CHANGE

Affordable housing remains an important need and continues to be one of the most pertinent topics of our time. As urbanisation continues and population growth expands, the need to sustainably provide affordable housing opportunities to more people has become urgent.

Lusanda Netshitenzhe, CEO of TUHF21 believes that while making a profit through investing in affordable housing, is essential; it needs to be complemented with deliberate actions to create a positive impact on communities and society. “This is especially so in recent times, because funders are beginning to consider how effectively companies align with Environmental Social and Governance (ESG) goals before funding a project.”

Additionally, in South Africa, over the past year water scarcity has become a contentious and critical topic. This, along with the recent return of load shedding shining a light again on the need for sustainable power supply, is making environmental concerns a priority. Housing and development projects, for example, are increasingly incorporating greening solutions – including solar power, more efficient water heating alternatives and more efficient ways to use both electricity and water.

“We are no stranger to impact investing and the role it must play in inculcating positive, lasting social change. We have been committed to fostering urban regeneration and densification through affordable rental housing for more than 21-years and continue to remain so. What we are seeing now is the importance of impact investing being brought even more to the fore,” says Netshitenzhe.

Affordable and decent housing is crucial to fostering the dignity of all citizens, as well as enabling people to build their prosperity. It is also an integral part of addressing spatial exclusion and historical inequalities.

For these reasons, the government has committed to provide more housing in the country's city centres, and the new Expropriation Act, if applied appropriately, lays the groundwork to take a firm aim at addressing the problems of abandoned and hijacked buildings and to use such buildings to create new affordable housing opportunities.

“However, neither government nor legislation can address the challenge of creating affordable housing on its own,” says Netshitenzhe. “Fostering urban and economic development requires partnerships between government, private companies and entrepreneurs who are empowered to succeed, so that together we can generate sustainable, inclusive growth in our cities and the country. For that to be a reality, we must attend to urban regeneration, urban densification, and urban management.”

In context, for the past 30 years, government has responded to the challenge of providing affordable housing in many commendable ways and their programmes have accommodated many people in decent homes.

While this approach had value, it also meant that many such housing developments were built on the periphery of cities, where building costs could be kept low, and land was less expensive. Unfortunately, this also resulted in urban sprawl, fragmented city structures, and people having to travel long distances into the city where many worked.

The recent pandemic and the lockdowns it demanded magnified the social inequalities that have long been of concern. Lack of access to well-located affordable housing and lack of access to funding for entrepreneurs has reached a point where critical intervention is needed.

“We have aimed to address these challenges with uMaStandi, which focuses on reinvigorating townships and helping bring decent and affordable housing into traditionally underserved areas,” says Netshitenzhe. “Our approach is to curate products that solve urban development challenges and there is still more to be done. The next product we are considering bringing to market is a rent-to-own model. The idea would be to offer property entrepreneurs a funding vehicle that allows them to provide housing on a rent-to-own basis rather than a rental-only basis.”

Lusanda Netshitenzhe, CEO of TUHF21.

Once adopted, the product will mean tenants can ultimately buy their units – making it easier for first-time homeowners to enter the market, creating a sense of ownership of the unit, the building and the surrounding precinct.

“We believe that this will inculcate more active involvement from tenants in our areas of finance, leading to better urban management and preserving the quality of building stock. We further believe that tenants who own part of the buildings in which they live are more likely to feel invested in building upkeep and maintenance of the surrounding precinct,” says Netshitenzhe.

“Our aim is to create real development impact and value in areas where we invest and this, we do to improve people's lives - enabling them to live in dignity, earn a sustainable livelihood, succeed and contribute to healthy communities. This is the kind of positive and sustainable socioeconomic change that we are committed to,” concludes Netshitenzhe.

GROWTHPOINT'S LOGISTICS PORTFOLIO BOLTSTERED

Growthpoint Properties has reached another milestone in its ongoing strategy to improve the quality of its directly held South African portfolio with the completion of Phase 2 of the Arterial Industrial Estate in Cape Town.

Driving its domestic portfolio enhancement, Growthpoint has strategically grown its logistics and industrial assets from 15% to 20% of the total SA portfolio value in recent years.

At the same time, South Africa's leading REIT (real estate investment trust) has increased its exposure to modern logistics warehouses, the backbone of Growthpoint's long-term value creation approach in this sector. Modern logistics properties are and now represent approximately half of the portfolio's gross lettable area. It is also focusing its investment in better performing, higher demand areas of the country, specifically in the Western Cape and KwaZulu-Natal.

A notable stride in this direction is the recent completion of Phase 2 of the Arterial Industrial Estate in Cape Town, adding quality capacity to the sought-after location. With 21,83 m^2 of additional lettable space, Phase 2 has added six more warehouse units, ranging from 2,945 m^2 to 5,713 m^2, catering to a variety of business needs. Together, both phases of the development represents a nearly R40-million investment from Growthpoint.

The estate is experiencing strong demand, with two of the six units in Phase 2 already snapped up supported by strong tenant interest, highlighting the need for high-quality industrial space in the region. Phase 1 of Arterial Industrial Estate, spanning 19,741 m^2 is fully let to top names in national and international industry.

"The completion of Arterial Industrial Estate's Phase 2, and the good demand and take-up of available space it is experiencing, underscores the value we provide to businesses seeking efficient and sustainable industrial real estate solutions," says Wouter de Vos, Growthpoint's Regional Head: Western Cape.

"Growthpoint is reporting strong performance in its logistics and industrial portfolio, fuelled by high occupancy rates and a strategic focus on modern facilities. Our well-let logistics and industrial portfolio demonstrates the increasing demand for modern, strategically located facilities," says Errol Taylor, Growthpoint's Head of Asset Management, Logistics and Industrial Property.

Arterial Industrial Estate is strategically positioned in Blackheath, a popular industrial hub in Cape Town, offering exceptional access to key transportation routes, including the R300, N1, and N2 highways, as well as Cape Town International Airport and the region's seaports. This prime location allows businesses to efficiently connect with both local and global markets.

The estate offers 24-hour security, flexible warehouse and office space, and a commitment to sustainability, including solar panels and a four-star Green Star certification from the Green Building Council of South Africa.

"This project reflects a continued and deliberate pivot toward better-performing, future-fit logistics assets and aligns with Growthpoint's strategy of targeted investment and divestment, and development," adds Taylor. ⊙

FRANKI FACTS

LATERAL SUPPORT AND PILING FOR ALTO WINERY, STELLENBOSCH

Engineering Excellence in the Heart of the Winelands

Nestled in the scenic vineyards south of Stellenbosch, Alto Winery is undergoing an ambitious upgrade to enhance its winemaking infrastructure. A key component of this transformation is the construction of a new basement, designed to increase storage capacity on-site. This addition required innovative geotechnical and structural engineering solutions, particularly in terms of lateral support and foundation piling.

Geotechnical challenges

The Alto Winery site is characterised by shallow, firm residual granitic soil from the Kuils River Batholith, part of the Cape Granite Suite. These granitic formations are overlain by sandy colluvium and localised fill, forming the upper 1,3 to 2,3 metres of the subsoil profile.

Due to the soil conditions and the large size that conventional spread foundations would have required, a piled foundation system was selected as the more suitable solution for the project.

Engineering solution

Franki Africa was appointed to deliver both the lateral support system and the piling solution. The lateral support for the 5,8 m cut was designed as a hybrid system comprising soldier piles and grouted anchors. These elements work in tandem to stabilise the excavation face. The soldier piles were connected by a continuous capping beam, ensuring uniform load transfer.

A key engineering challenge was the close proximity of the excavation to the existing structures. The carefully designed and executed lateral support system successfully limited ground movement during and after construction.

Once the lateral support system was installed, excavation to the basement level commenced. This excavation served as the platform for the installation of Continuous Flight Auger (CFA) piles. The foundation design included a grid of piles interconnected by ground beams, tailored to support the structural requirements of the new storage facility. ⊙

Installation of Rigid Inclusions.

Installation of Stone Columns.

FRANKI FACTS

GROUND IMPROVEMENT FOR DEEP SOFT SOILS

A project south of Durban presented a range of geotechnical challenges due to the site's complex and highly variable ground conditions. The subsoil beneath the area consists of a mix of sands, silty sands, intercalated black soft clays (also known as "hippo muds"). Hippo muds are notorious for causing settlement related problems, and as such, a robust foundation solution was required to ensure the long-term performance of this project.

Geotechnical challenge

The geological profile of the site features a surface layer of granular fill, underlain by stiff silty clay extending to depths of few metres below ground level. Beneath this layer lies a subsoil consisting of estuarine silty sands and clays, interspersed with pockets of highly compressible, very loose to very soft materials, which are randomly distributed throughout the profile.

The variation of the soil profile, both in plan and elevation, combined with the presence of highly compressible silty clay, presented a serious challenge for the foundation design of the proposed structure. Significant settlement risk could be expected if no improvement was carried out below the structure. This risk was exacerbated by the variability of the ground profile and the time dependency of the randomly located, compressible silty clay pockets/layers.

To better characterise the soil profile and its variability, ten cone penetration tests (CPTu) were conducted, in addition to the ten borehole results available from the original ground investigation.

Proposed engineering solution

In response to these challenges, rigid inclusions (RIs) were selected as the most suitable solution. This method, although still relatively novel in South Africa, has been used around the world as a cost-effective ground improvement method for large footprint loaded structures such as warehouses, embankments, storage tanks and reservoirs.

Liebherr 355 - one of the largest ground improvement rigs on the continent.

Rigid inclusions ground improvement involves installation of concrete columns (typically diameter 300 – 600 mm) in a grid format (spacing typically 1 – 3 m). These concrete columns are installed through the soft/compressible soil layers to found on rock or competent layer.

The system also requires a load transfer platform (LTP) constructed on top of the RIs to transfer and distribute the load to the RIs, similar to the function of a pile cap. The load transfer platform is typically a compacted granular layer which can be replaced or minimized by the addition of stone columns above the RI.

For this project, rigid inclusions are installed using a displacement technique where a steel tube is vibrated into the ground using a ring vibrator, bypassing weak or soft soil layers that may not be immediately apparent during geotechnical investigations. Once the tube reaches refusal, concrete is pumped into the tube, and the tube is then extracted, leaving behind a concrete column. To complete the RI, a short stone column is constructed in the wet concrete column.

The use of displacement method allows RIs depths to be adapted to the ground variability, ensuring all columns are founded on competent soil layers. The columns varied in length between 16m to 30m, and these excessive depths could only be achieved using purpose-built equipment.

Both RIs and piles were technically viable solutions to satisfy the project requirements. It should, however, be borne in mind that factors such as programme, cost, constructability and geotechnical risk be evaluated. The design and construction of floors and foundations are generally simplified with ground improvement solutions and therefore leads to overall cost and programme savings. RIs are installed from the working platform level and the completed platform is flat and clean. Unlike piled solutions, there is no reinforcement protruding above platform level, nor is trimming of piles required. In addition, the only excavation required after completion of the fill is the footings. This simplifies floor construction significantly, which results in optimised program and costs for this project.

As the construction industry continues to address its role in global carbon emissions, sustainability remains a central focus for Franki Africa. In alignment with this commitment, the carbon footprint of this project was calculated using the EFFC/DFI carbon calculator, which estimates CO_2 emissions per square metres of ground improvement. Total CO_2 emission for conventional piling solution (including ground beam and slab) was calculated at 668 CO_2e/m^2, while RI ground improvement solution (including LTP and floor) resulted in 541 CO_2e/m^2. This translates to a 20% reduction in the carbon footprint for the foundation scope of the project.

Conclusion

Although rigid inclusions remain a relatively new ground improvement solution in South Africa, Franki Africa's successful application of this technique on this project demonstrates the growing acceptance of the solution in the local construction and geotechnical industry. This project highlights the potential for wider adoption of rigid inclusions as a reliable, cost-effective and sustainable ground improvement solution. ⊙

ENGINEERING NATURE'S FURY

In the heart of a thriving wildlife corridor near South Africa's Sabie River, a bold vision for a luxury villa development bordering the Kruger National Park is taking shape. Nestled along a historically active dry waterway that converges with the Sabie River, this project poses a unique engineering challenge: creating world-class infrastructure while preserving the delicate ecological balance of this biodiverse region. ***By Fanie Joubert Pr Eng, Head of Civil Structural & Eco-Engineering.***

The seemingly benign dry riverbed transforms into a formidable force during seasonal floods, reshaping the landscape with powerful erosive energy. Flowing southward at an angle of approximately 70 degrees towards the Sabie River, the watercourse makes a sharp westward turn of 60 degrees before executing a tight 10 m radius bend.

This geological pinch point is notorious for accelerating water velocity and intensifying erosive forces. Approximately 100 m downstream, the riverbed veers southward again with a dramatic 90 degree turn, creating a rectangular development zone of about 80 by 100 m, bounded by the riparian zones of the Sabie River and the dry riverbed.

Flooding events have left their marks on the landscape, with the steep, vertical faces of the outside embankment testifying to the water's relentless force. The uprooted trees scattered across the area are evidence of past hydrological violence. Among the survivors are two majestic Jackalberry trees *(Diospyros mespiliformis),* precariously leaning towards the riverbed, their root systems compromised by erosion and threatened with imminent collapse during the next flood event. The loss of these iconic trees would not only be an ecological tragedy, but also a significant aesthetic loss for the estate.

A harmonious engineering solution

To address this complex challenge, a gabion structure emerged as the optimal solution. This innovative approach, combining structural integrity with environmental sensitivity, aimed to stabilise the embankment, protect the existing vegetation, and safeguard future developments. Gabions, with their interlocking mesh filled with carefully selected stones, offer a durable and aesthetically pleasing solution that blends seamlessly with the natural environment, while delivering long-lasting performance.

Technical execution and collaboration

The project's success was ensured through collaboration between industry leaders, namely:

- Project engineer: Stefan Triegaardt of Consolv Consulting Engineers
- Design engineer: Fanie Joubert from Civil
- Structural & Eco-Engineering

- Construction specialist: Gabion Guru, and
- Project manager: Mike Gillard

Together they ensured that the final design met both engineering and ecological objectives, especially in terms of preserving the Jackalberry trees, which were safeguarded by the design.

Beyond the structure: A holistic approach

The project extended beyond the construction of the gabion wall. To minimise disturbance to the environment, a detailed survey was conducted to identify the most favourable alignment for the structure. In collaboration with the client, the decision was made to cover as much of the gabion structure with topsoil as possible, further integrating the structure into the natural landscape.

The gabion wall design was tailored to address both immediate and long-term challenges.

Spanning 50 m in length and consisting of three layers, each 1 m high, the structure was carefully aligned to match the 1:100-year flood level. The foundation comprised a 300 mm deep gabion mattress extending 3 m from the front of the base layer, made of 2 m by 1 m gabions. Each successive layer, stepped back by 500 mm, created a stable and aesthetically pleasing terraced effect.

By projecting outwards, the gabion mattress acts as a protective barrier that disperses the force of incoming water flow, reducing its velocity and minimising the erosive impact on the soil directly beneath the main structure. This strategic placement helps to prevent the undermining of the foundation.

The vertical backside of the structure was fortified with geotextile fabric, a critical component for preventing soil erosion while allowing water permeability, reducing the hydrostatic force of water behind the gabion wall and thereby ensuring its stability. Behind the wall, the filled area was graded to a maximum slope of 1:1.5 to avoid creating steep, vulnerable inclines. Topsoil, carefully preserved during the excavation phase, was used to cover the filled area and promote vegetation regrowth.

To further protect the soil and encourage plant growth, a layer of SoilSaver was applied.

This innovative biodegradable erosion control blanket naturally decomposes within one to three years, leaving minimal environmental impact. It creates a protective layer that reduces soil movement and water runoff, provides a stable microclimate that encourages seed germination and plant growth, and helps maintain moisture in the soil, supporting initial plant establishment.

A testament to sustainable engineering

Now completed, this project serves as a model for sustainable development, demonstrating how thoughtful engineering can harmonise human needs with ecological imperatives. The gabion wall becomes more than a structural element – it is a narrative of respect, resilience, and responsible construction.

The success of this initiative also underscores the potential of gabion technology as a versatile solution in addressing complex challenges in environmentally sensitive regions. As climate change exacerbates weather extremes and increases the frequency of flooding, such innovative approaches will become increasingly critical. ⊙

Jean Breedt, Operations Director of GeoCiv Group.

Greg Whittaker, Group Managing Director – GeoCiv.

THE ROAD TO BEING "TOP OF THE PILE"

The GeoCiv Group operates in the highly specialised market of geotechnical engineering. It has the clear vision of being the most efficient and innovative geotechnical company in the Southern Africa region and given the current levels of excellence, it is already attaining this. In fact, its self-coined phrase 'top of the pile' is starting to ring true.

Construction World spoke to Greg Whittaker, Group Managing Director and Jean Breedt, Operations Director of GeoCiv Group about the history of the company and how this has, indirectly, set it up to attain number one status in a niche market.

GeoCiv Group's journey began with the founding of KZN Piling in Durban by Whittaker in 1996. The company quickly gained recognition for its expertise in the niche market of piling and geotechnical works. "It typically specialised in piling and lateral support and in 2004, it rebranded as Mega Pile, and expanded its operations to service industry demands on a national footprint," says Whittaker.

In 2006 Mega Pile was acquired by JSE-listed company Sanyati Holdings. "This was the period before the World Cup and Mega Pile did exceptionally well," he says. However, Whittaker did not see himself being part of a corporate conglomerate. "It is not quite what my identity is, as I am an entrepreneur at heart and wanted to stay that way." He therefore sold his shares and left the industry for 18 months to pursue property development.

Sanyati Holdings dissolved in 2012 and Mega Pile was re-established with Whittaker making his return at the helm, still based in Durban. In 2016, Whittaker rebranded as GeoCiv Group, and reflecting its broader vision and commitment to delivering innovative geotechnical solutions, its head office was moved to Gauteng.

"Jean Breedt joined in 2016 as the Operations Director and thanks to him and the rest of the GEOCIV team we have grown the brand exponentially, to the point where we now have a branch in Cape Town and therefore fulfilling our vision of being a national brand," says Whittaker.

The legacy continues

Based on a legacy of innovation and excellence that stretches back to 1996, GeoCiv Group is now a leading specialist in geotechnical works, piling and lateral support with a wide footprint. It offers services and products for a full design and construct, or construct-only basis. "GeoCiv Group's ability to project manage entirely in-house has enabled us to secure major government and private contracts in the commercial, industrial and residential spheres. It is GeoCiv Group's objective to further develop our experience, growing in a sustainable, controlled manner, and expanding in terms of both geographical coverage and product offerings," says Whittaker.

GeoCiv Group consists of a team of motivated, experienced and highly skilled professionals – able to assist in all parts of the process and offer clients the most cost-effective and innovative design for a geotechnical solution. Other key players include Desmond Lange (Financial Director), Dinesh Naidoo (Procurement and Logistics), Burger Rust (Special Works Director), Werner Rix (Contracts Director), Qan Groenewald (Contracts Manager – Cape Town) and Vernon Mouton (Plant and Yard Manager).

"The GeoCiv Group offers a full spectrum of geotechnical services," says Breedt. "It provides piling for robust foundation solutions for various structures; lateral support; geotechnical investigations to make informed design decisions and design and construct services," he explains. The company's expertise spans across multiple sectors, including commercial, industrial, residential, and infrastructure projects. Notable projects include the Ford Silverton Press Plant Upgrade, the Msikaba River Bridge in the Eastern Cape, and the Booysendal Mine infrastructure development in Limpopo, as well as several

Teraco Data Centres in Johannesburg and Western Cape.

"To meet clients' exact requirements, the business is underpinned by quality control systems, sound management, financial principles and our core values," says Whittaker. "At the core of GeoCiv Group's operations is its commitment to quality, safety, and client satisfaction," he says. The company adheres to stringent quality control systems and safety protocols to ensure the successful delivery of projects. GeoCiv Group's in-house project management capabilities enable it to maintain high standards and meet client expectations consistently.

Bringing the core values to life

Whittaker says the core values of GeoCiv is what sets it apart. "These values give us a competitive edge. When we broke away from Mega Pile, we had a chance to almost reinvent ourselves. It gave us the chance to reboot and to strengthen areas that needed to be strengthened," he says.

All the core values to which the company aspire to has the same goal. "We want to dominate this niche sector," says Whittaker. "We want repeat clients and want to be known for our commitment, pride and entrepreneurship, but especially for our innovation which is a major core value."

Innovation is paramount

"There's a code of practice in terms of lateral support, shotcrete and piling works. What we have learnt of the last 10 years is that this is a mere "guideline" as to how these specialist work must be constructed. We juggle this code that was written as far back as 1989 with new technology, methods and techniques. We are therefore always open to try new things and to INNOVATE. We take something that has worked for 30 years and mould it into something new , that works for us and our clients. It improves production, and that makes is cheaper and safer to install. This is our mindset and it supports the installation techniques and the high tech equipment we are using," says Breedt.

This innovative approach upholds all aspects in GEOCIV Group – from equipment, safety, to installation procedure and materials used. "We look holistically at the process to innovate, from writing a report, to installation and management of our job sites. We innovate on all fronts and work "smarter, not harder," he says.

This innovation and excellence is further enhanced by the High Tech equipment that GeoCiv uses to execute projects.

“GeoCiv continuously invests in new equipment that is more efficient for production as it improves uptime, provides a better installation process, more cost effective operations and offers a safer work environment,” says Whittaker. “We do not want to be complacent and do things the same way they have always been done in this niche industry. As a company, we do not have that mindset and always think “ out of the box “, and we are driven by the concept of wanting to do it better and push the boundaries,” .

Looking ahead

GeoCiv recently opened a branch in Cape Town. “We're very excited about it. The Western Cape has an increasingly busy construction sector and GeoCiv wants to offer its specialist services. The branch is equipped with new equipment from Europe as we want to offer innovation and excellence for the region,” says Whittaker.

As GeoCiv Group continues to expand its footprint across South Africa and the SADC region, it remains dedicated to innovation and excellence in geotechnical engineering. The company's experienced team and comprehensive service offerings position it to meet the evolving needs of the construction industry, contributing to the development of sustainable and resilient infrastructure across the region. ⊙

CONCRETE SURFACE ENHANCEMENT

Fibertex Nonwovens SA offers geosynthetics solutions encompassing Controlled Permeability Formwork (CPF) liners, designed for concrete surface enhancement in diverse applications, including highly aggressive environments.

Typical applications of Fibertex Formtex® CPF liners are in potable water tanks, wastewater treatment plants, settlement tanks, container terminals, bridges and tunnels, marine structures, as well as dams and sluices.

"The main functions of Formtex® CPF liners are to improve the durability of a concrete structure, to extend its service life and reduce maintenance costs," says Brian Potgieter, Technical Sales Engineer, Fibertex Nonwovens South Africa. "Degradation of concrete structures is normally accelerated by the effects of salt water, high temperatures and increased CO_2 levels in the air.

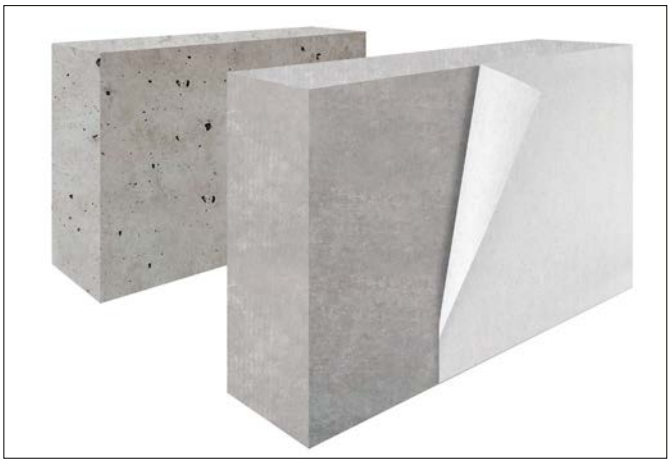
"Formtex is a two-layer CPF liner, consisting of a drainage layer that allows water and air to escape and a filter layer with a pore size designed to retain cement particles. When surplus water and air is drained from the surface of the freshly poured concrete during compaction, the water/cement (w/c) ratio in the concrete cover is reduced. This results in a denser and stronger concrete, with a blemish-free surface."

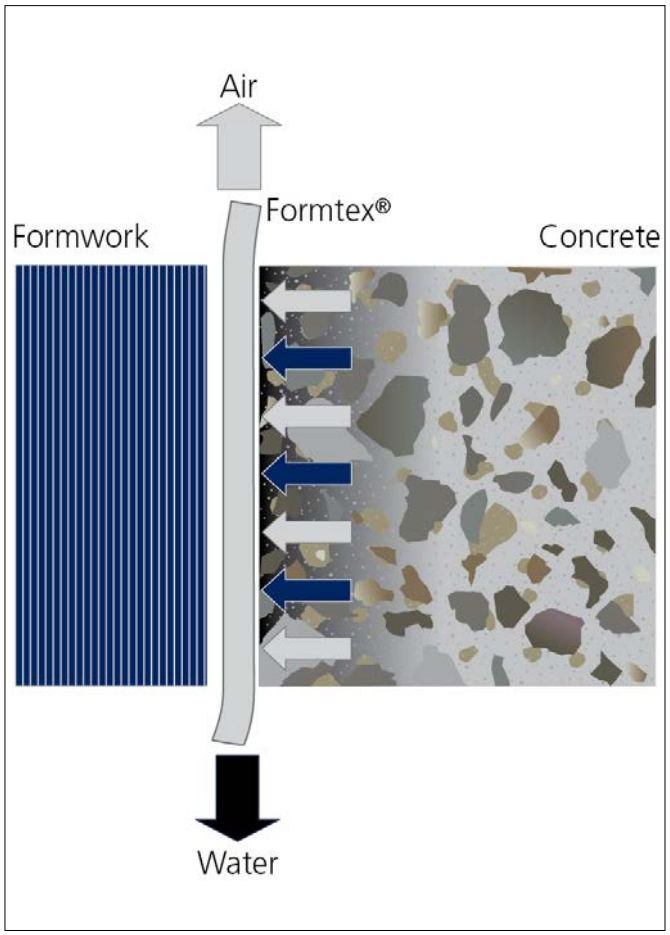
Formtex CPF liners, which are suitable for the rounded shape of concrete elements, are used in the casting of bridge pillars and bridge spans, to ensure high quality, durability and low maintenance of the concrete elements that need to withstand aggressive environments.

Formtex also reduces the formation of blowholes and other blemishes on the concrete surface that normally require extensive deburring after the formwork is removed. The smooth, dense and strong concrete cover is dust-free and because there are no release agents, it is an ideal prepared base for further surface treatment or coatings.

Formtex CPF liners, which reduce micro bacterial growth, are an efficient alternative to slip agents for fresh water supply structures. CPF liners also minimise the penetration of graffiti media, making it easy to remove from a surface.

The chemical and mechanical resistance of concrete structures of sewage plants and settlement tanks are important factors for consideration. The concrete face, which





is in constant contact with wastewater, needs to withstand the penetration of aggressive substances and high-pressure cleaning procedures.

In potable water tanks, mechanical resistance of the concrete is also imperative, as the concrete face is subjected to high-pressure cleaning and, because micro-organisms flourish in voids and feed on oils, it is critical that the concrete surface is smooth, uncontaminated and free from blowholes.

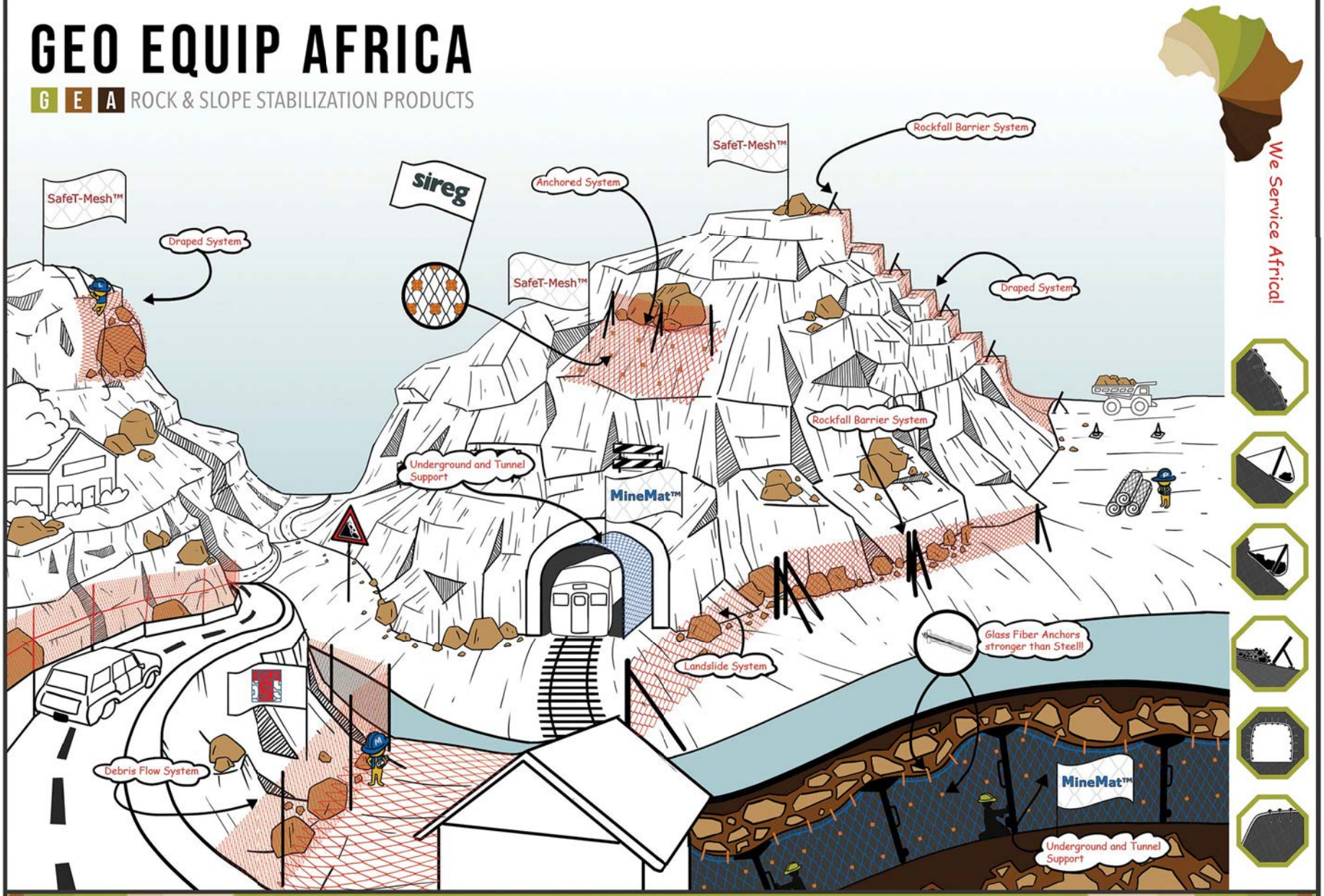
Formtex is designed for tensioned, glued or self-adhesive mounting to vertical or inclined surfaces. Once Formtex is attached, concrete casting is performed as usual. These liners can easily be removed from the concrete during formwork striking.

The Fibertex geosynthetics range encompasses nonwoven and woven geotextiles, gabions and mattresses, drainage pipes and fittings and erosion control and cellular confinement solutions. The company also supplies soil reinforcing and stabilising products, including geogrids and geocells, as well as geosynthetic clay liners as part of composite lining systems in modern landfills.

Fibertex Nonwovens SA is the largest manufacturer of UV stabilised virgin PP (polypropylene) nonwoven geotextiles produced in Africa, with certification for durability of over 100 years, in accordance with the latest EN standards. ⊙

GEO EQUIP AFRICA

G E A ROCK & SLOPE STABILIZATION PRODUCTS



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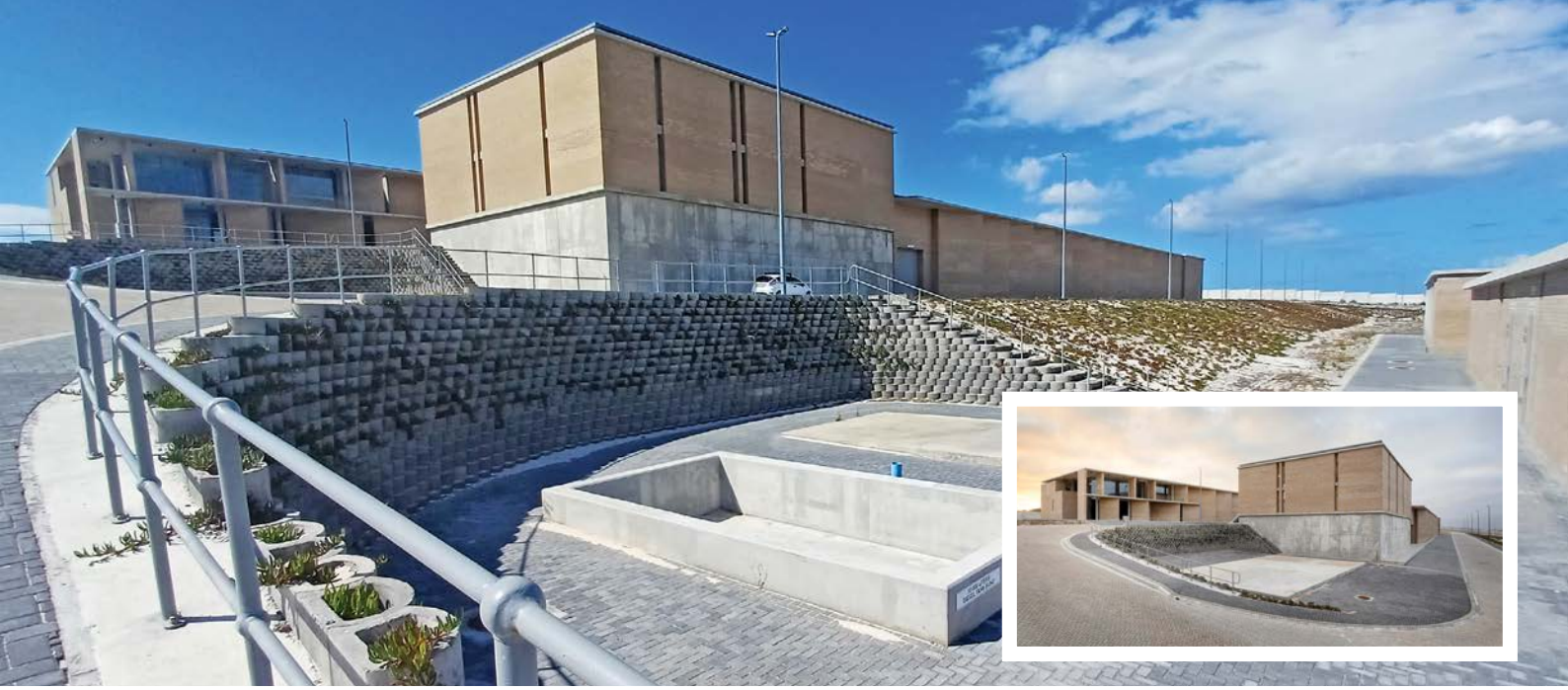
SUSTAINABLE TERRAFORCE® SOLUTION ELEVATES AWARD-NOMINATED CAPE FLATS AQUIFER RECHARGE PLANT

The Cape Flats Managed Aquifer Recharge (MAR) plant, a Top 5 finalist in this year's Architizer A+ Awards, is a pioneering response to Cape Town's water crisis in 2018, famously called 'Day Zero', that almost saw an entire city without water. In its 13th Year, the A+ Awards honours the best buildings and spaces of the year, celebrating the work of pioneering architects and designers like those behind this crucial water management facility.

At the heart of the project lies the innovative process devised by the civil engineers, of recharging the Cape Flats Aquifer, a critical water source for the region. Treated effluent is purified to potable standards and reinjected into the aquifer to maintain its levels. This process unfolds through a series of four linear filtration buildings, carefully arranged along an artificial slope to facilitate a gravity-fed filtration system. The journey begins at the highest filtration building and descends to the lowest, where the purified water is redirected to the aquifer. The long east-west facades of these buildings feature angled brick fins and narrow south-facing windows, creating a "gilled" aesthetic that filters light while preventing algae growth in the filters. These facades act as membranes - not for water but for sunlight - transforming filtration into both a functional and symbolic architectural element.

The Terraforce® retaining wall blocks were selected to complement SALT Architects' thoughtful design vision, with their round-faced finish resembling natural rock formations creating an organic counterpoint to the precise geometry of the building's brick fins. This harmonious integration of engineered structures with architectural elements reinforces the project's commitment to both functionality and aesthetic cohesion. These blocks also add texture and pattern to the landscape, creating an engaging dialogue between the built structures and their surroundings. This harmonious integration of engineered structures with architectural elements reinforces the project's commitment to both functionality and aesthetic cohesion.

Situated within the False Bay Nature Reserve in Pelican Park, this facility addresses the need for sustainable water management by purifying treated effluent to potable standards and recharging the Cape Flats Aquifer. The site, a flat sandy expanse bordered by dunes, endures strong prevailing



southeasterly winds and corrosive coastal conditions, all of which informed the design approach.

Says Lukhanyo Losi, Site Agent, Stefanutti Stocks: "During the design phase, it became evident that there were three platforms at different elevations, with approximately 8m difference between them. Initially, solid concrete retaining walls were proposed, but the client considered this option unattractive. Terraforce® proved to be the perfect solution instead, as these blocks are plantable and permeable, creating a more aesthetically pleasing result. This choice was also more environmentally sound, which was particularly important given that the project is located in a nature reserve."

Terraforce® blocks supplied by Cape Peninsula Terraforce® licensed manufacturer @Klapmuts Concrete.

Project Team

- Architects: SALT Architects
- Design Engineers: Water & Wastewater Engineering
- Project Managers: JG Afrika
- Structural Engineers: JG Afrika, WA Structural Design
- Geotechnical Engineers: Peregrine Consultants
- Contractors: Stefanutti Stocks
- Sub Contractors: Amandla Civils

WHY OIL ANALYSIS SHOULD NOT BE OVERLOOKED

Prevention is always better than trying to find a cure. This is especially true when it comes to avoiding failures in expensive and hardworking machinery – and is why regular oil analysis should be an integral part of any maintenance programme.

Oil analysis is critical for understanding how well a lubrication programme is working, and where and how to tweak it when needed.

Gary Wentzel from Lubrication Engineers (LE) South Africa says, "The reason we recommend our clients do oil analysis is because otherwise it's difficult to really know what is happening inside a piece of machinery or what the oil status is. With oil sampling you can keep up to date with your additive packages as you can see what is happening, such as if there is a drop in viscosity and how much dirt there is, or the extent of the wear and tear that is taking place."

Even when using top quality lubrication products and following correct storage and usage programmes, a lubrication solution can fall flat without consistent, accurate monitoring of the condition of the oil. Many plants have oil breathers and oil level monitors, but not all of these tools are reliable, and they can easily get blocked up or are situated in hard-to-reach places where they aren't regularly checked. "I have had clients with oil level monitors on their gearboxes, but when the gearboxes failed, they found out that actually the oil was finished," says Wentzel. "This is why oil analysis shouldn't be skipped."

What are the benefits of oil analysis?

With regular oil analysis, "you always know what is happening in each part of your equipment," says Wentzel. Collecting this level of information helps to create a database for maintenance requirements across a site and the reports allow operational teams to see when an oil needs to be replaced. "It's a core preventative maintenance practice," he adds.

When oil is changed in time, it reduces the risk of machinery breaking down, and prevents spillage and downtime, along with all the other associated risks and costs of those things happening.

How does oil analysis work?

A technical expert will first inspect the plant to find an appropriate sampling point. There are different methods for taking a sample (such as through suction or using a drain port), but the samples should be taken at the same point each time.

"The sample point should be before a filtration system, not after, so it gives you a true indication of the state of the gears," says Wentzel. ⊙

Lubrication Engineers (LE) South Africa represents the LE brand in South Africa, Botswana, Namibia, Mozambique, Zimbabwe and Zambia. It holds the rights to Southern Africa on the LE brand, recognised internationally as a specialist in lubrication.

Through LE Incorporated, it is a member of a worldwide network of companies spanning Europe, South America, Asia and Africa, while LE Incorporated operates in the USA and covers North America including Canada, Mexico and the USA.

LE provides high performance, heavy-duty, quality lubricants for virtually every industry and application, as well as expert technical back-up and support.

TROTECH

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Think Tanks Think TROTECH

THE JCB 205NXT LARGE EXCAVATOR: TOUGH. EFFICIENT. CONNECTED.

The construction industry in South Africa is constantly evolving, with new technologies and machinery designed to enhance productivity and efficiency. JCB is at the forefront of this development with innovations like the JCB 205NXT Large Excavator - a machine designed to revolutionise the way we approach excavation tasks.

Cutting-edge features

The JCB 205NXT is equipped with a range of advanced and innovative features. At the heart of this machine is the Cummins 6BT 5.9C engine, a powerful and efficient engine that delivers 140 horsepower (104 kW). This engine is designed to provide robust performance while maintaining fuel efficiency, a critical factor in reducing operational costs.

One of the standout features of the JCB 205NXT is its IntelliControl system. This advanced control system provides operators with real-time operational data on a built-in digital display screen. From fuel status and engine speed to operating mode status and health alerts, IntelliControl ensures that operators have all the information they need to optimise the machine's performance. Additionally, the system supports remote monitoring through JCB's LiveLink technology, allowing for GPS tracking, geo-fencing, and machine utilisation reports.

Performance and efficiency

Performance is a key consideration for any large excavator, and the JCB 205NXT does not disappoint. The machine features impressive bucket and dipper tear-out forces, which is essential to ensure that it operates efficiently even under demanding conditions.

JCB's ecoHydraulic technology is another innovative feature, recycling hydraulic oil across the cylinders to achieve faster cycle times and reduced fuel consumption.

The excavator offers three power modes - Eco, Power, and Power Plus - allowing operators to choose the mode that best suits their needs. In Eco mode, the class leading engine powers fuel-efficient operation, delivering up to 32% reduced fuel consumption compared to previous models. This flexibility in power management not only improves fuel efficiency but also reduces wear and tear, thereby extending the machine's operational life.

Ease of maintenance

Maintenance is a crucial aspect of heavy machinery operation, and the JCB 205NXT is designed with this in mind. The machine utilises a JCB hydraulic filtration system to provide class leading component protection and double the oil life, with up to 5 000 hours between hydraulic oil changes and 1 000 between hydraulic main filter changes. This significantly reduces maintenance costs and downtime, ensuring that the excavator remains operational for longer periods.

Operator comfort and safety

Operator comfort and safety are paramount in the design of the JCB 205NXT. The excavator's cabin is ergonomically designed to improve operator productivity, with well-positioned controls and a comfortable seating arrangement. The cabin also features a ducted air conditioning unit with a heater, ensuring a comfortable working environment in all weather conditions.

It also includes a range of safety features, including a double

hydraulic lock system and optional cab guards for protection against flying debris. The machine's excellent all-round visibility during digging, loading, and positioning enhances operational safety, allowing operators to work with confidence.

Versatility and applications

The JCB 205NXT is a versatile machine capable of handling a wide range of applications. Its robust design and powerful performance make it suitable for tasks such as digging, demolition and material handling. The excavator's maximum digging depth of 6 140 mm and a maximum horizontal reach of 9 100 mm ensure that it can tackle even the most challenging jobs.

The JCB 205NXT is set to make a significant impact in South Africa's evolving construction industry, with its innovative features able to address the unique challenges faced by local construction companies. The machine's ability to operate efficiently in diverse conditions, from urban construction sites to remote mining operations, makes it a valuable asset.

Moreover, the JCB 205NXT's fuel efficiency and ease of maintenance are particularly beneficial in South Africa, where operational costs and downtime can significantly affect project timelines and budgets. By reducing fuel consumption and maintenance requirements, the 205NXT helps companies optimise their resources and improve overall productivity. The JCB 205NXT Large Excavator is a testament to JCB's commitment to innovation and excellence. With its advanced features, efficient performance and focus on operator comfort and safety, the JCB 205NXT is poised to set new standards in the world of large excavators. Whether it's large-scale construction projects or demanding excavation tasks, the JCB 205NXT offers the reliability and efficiency you need to get the job done.

THE CRUCIAL ROLE OF DEMOLITION IN DAM MAINTENANCE

Demolition plays a crucial role in dam maintenance by facilitating the repair, renovation, or removal of structures to ensure the dam's integrity, safety and functionality. Years of applied demolition research has enabled Jet Demolition to offer an integrated approach to dam rehabilitation.

Over time, dams can develop structural issues such as cracks, weakened spillways or compromised foundations. Demolition of damaged sections allows for the safe removal of deteriorated materials, making way for repairs or replacements. For example, partial demolition of a spillway may be necessary to replace it with more durable materials or to upgrade its capacity.

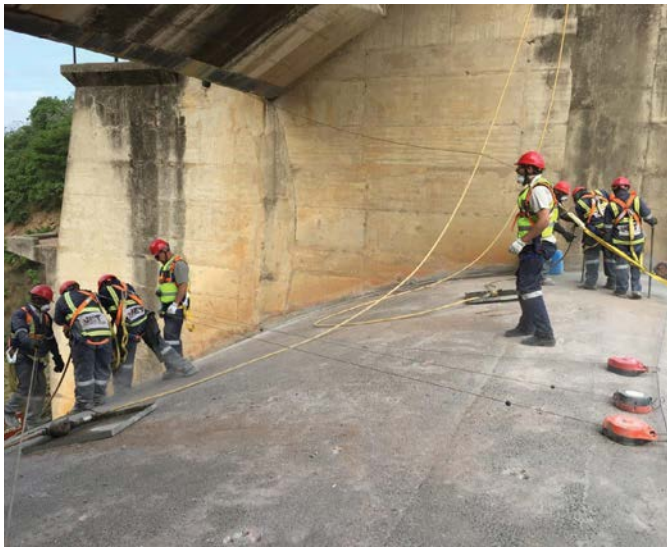
Dams built decades ago may not meet current safety standards or operational requirements. Demolition of outdated components such as control gates, overflow structures or auxiliary buildings is often necessary to modernise the dam. This process enables the installation of new technologies such as automated control systems or enhanced flood control measures.

Hybrid solutions are developed to suit specific, on-site conditions while protecting the structural integrity of the remaining concrete. Rehabilitation of dam walls usually requires demolition of redundant portions of monolithic blocks. "Judicious selection of demolition methods and their application techniques are vital to a controlled and productive project," comments Kate Bester, Contracts and Project Manager at Jet Demolition.

In certain instances, explosive demolition may be possible and appropriate. Various drilling and coring methods are then applied to generate blast holes of pre-determined depths, diameters, and alignments, in strict accordance with our in-house blast-design, where the nature of the works to be undertaken warrants controlled blasting of spillways and structural elements.

Detonation causes both shock wave and gas penetration energy transfer to concrete structures. Therefore, it is critical to ensure physical separation of the elements, combined with careful and considered selection of blasting applications, to ensure reliable and predictable results, without residual damage to the remaining concrete.

The company has successfully completed numerous dam wall demolition projects, both by explosive and mechanical means. Its range of dam-specific services includes vertical and



horizontal drilling and coring, blasting, diamond wire rope cutting and mechanical breaking using specialised demolition tools. When a dam reaches the end of its useful life, or if it poses safety risks, full or partial demolition is required to decommission the structure safely. This process can involve the controlled explosive or mechanical removal of key components such as spillways or retaining walls to reduce the dam's height or eliminate its water-retaining capabilities. Proper decommissioning through demolition ensures that the site is returned to a safe and environmentally stable condition.

Some older dams can negatively impact local ecosystems by disrupting natural water flows and fish migration patterns. In such cases, selective demolition can create openings for fish passage or restore natural riverine environments. This type of demolition is carefully planned to minimise ecological disturbance while achieving environmental restoration goals.

In response to changing environmental conditions or increased risk of natural disasters, demolition may be necessary to modify a dam's structure, such as reinforcing its base or adding new spillways. These safety enhancements ensure the dam can withstand extreme events and continue to protect downstream communities. ⊙

PRECISION ENGINEERING ADDRESSES JOBURG WATER CRISIS

Uni-span delivers complex large-scale formwork and scaffolding solutions for critical Kempton Park and Brixton water tower projects.

As water demand continues to put a strain on infrastructure in Gauteng's urban areas, the residents of Kempton Park and Brixton (and surrounding areas) will experience some relief as two new water towers are nearing completion. These developments represent critical milestones in South Africa's broader Strategic Integrated Projects in energy, water and sanitation, transport as well as digital communications infrastructure.

The new Kempton Park tower, located on the western edge of the City of Ekurhuleni that is chronically affected by high water demand and shortages, is a 43-metre-high conical structure. The tower can store up to 2,5 megalitres of water, alleviating high demand in an area. In Brixton, a similar but slanted wall is expected to be completed by the end of 2025, also adding much needed capacity in a water stressed region of the City of Johannesburg.

Central to the development of these builds was Uni-Span, which has for over 36 years built a rich heritage of providing the unseen framework holding together some of the most important public assets – from bridges, water reservoirs and power plants – across Africa.

Both towers demanded complex temporary works design, with high load-bearing capacities, circular geometry, vertical climbing systems, and preventative measures to avoid deformations or collapses, even in extreme weather.

On the Kempton Park Water Tower, Uni-span provided critical formwork support to MLK Engineering and Construction.

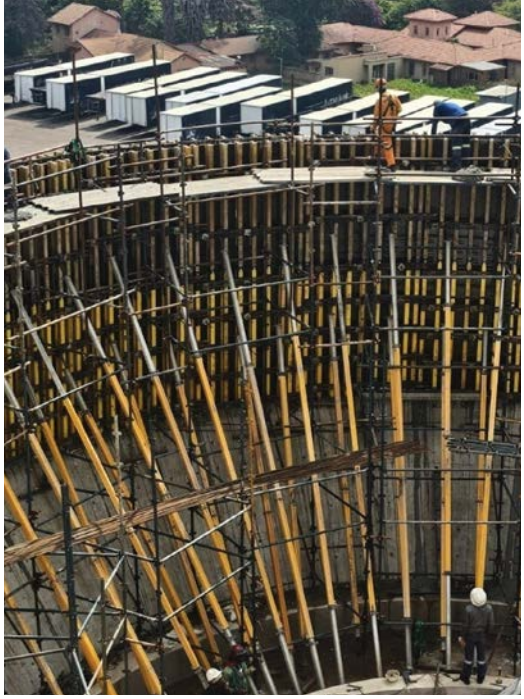
"A water tower takes around 18 months to complete and is one of the most intricate structures a contractor can supply, even more so than a bridge," says John Damant, CEO Uni-span. "While similar, these two projects called for meticulous design and a high degree of preparation and onsite support."

As a sub-contractor, Uni-span was responsible for designing all the formwork and scaffolding based on the contracting engineers' drawings.

This amounted to supplying hundreds of tonnes of formwork material, which included a complete scaffolding solution for large scale civil works and strong, durable and versatile timber support tailored for complex civil applications.

The designs had to ensure safe, efficient and reliable support, so the towers could be built on time, on budget and robustly, so they can last for generations to come.

Gideon Lesia from Mapitsi Civil Works, which led the Brixton


project, emphasised that the water tower infrastructure will make a significant difference to the existing water supply system in surrounding Johannesburg suburbs.

"It's a project that positively contributes to addressing the area's water infrastructure challenges and supports the broader community. Working with Uni-span as our formwork subcontractor was a seamless experience. Their designs were clear and professional, and the logistics around material delivery were efficient and hassle-free. They proved to be a reliable partner," he says.

Both projects underscore the vital role that expert engineering and quality formwork play in delivering infrastructure that not only meets immediate needs but also supports long-term community development.

"As the economy grows and investment into infrastructure continues, one cannot overstate the importance of structural integrity in every project, big and small," Damant says. "Our formwork, but most importantly our expert engineers, are critical in ensuring stability as these compounded structures are painstakingly put together.

From the start of each project, our engineers are present on site to ensure correct assembly and maintenance of each part of the formwork, a commitment I believe sets us apart." ⊙

SOUTH AFRICA'S INFRASTRUCTURE STANDARDS AT A CROSSROADS

In the shadows of Johannesburg's gleaming skyscrapers, a less visible crisis unfolds. Construction sites sit abandoned, procurement processes stretch into years rather than months, and infrastructure projects critical to South Africa's future routinely exceed budgets by 50% or more. ***By Ronnie Siphika, CEO at Construction Management Foundation***

At the heart of this dysfunction lies the Standard for Infrastructure Procurement and Delivery Management (SIPDM) – a framework introduced with noble intentions but now viewed by many industry insiders as part of the problem rather than the solution.

"We've created a monster of bureaucracy without building the capacity to tame it," says a senior engineer at a major parastatal, speaking on condition of anonymity. "The standards look impressive on paper, but in practice, they've become obstacles to delivery rather than enablers."

The promise unfulfilled

When the National Treasury introduced the SIPDM framework as part of the broader infrastructure development initiative, it represented an ambitious attempt to standardize procurement procedures, enhance project management, and ultimately deliver better value for South Africa's infrastructure investments. The framework emerged against a backdrop of inconsistent practices, corruption allegations, and project failures that had plagued the sector for decades.

In theory, the SIPDM offered a comprehensive solution to these challenges. It established standardised documentation, structured project phases, and detailed governance requirements intended to ensure consistency across departments and entities. Professor Siyabonga Mthembu of the University of Cape Town's Department of Construction Economics notes that "the conceptual architecture of the SIPDM represents a sophisticated understanding of international best practices in infrastructure procurement."

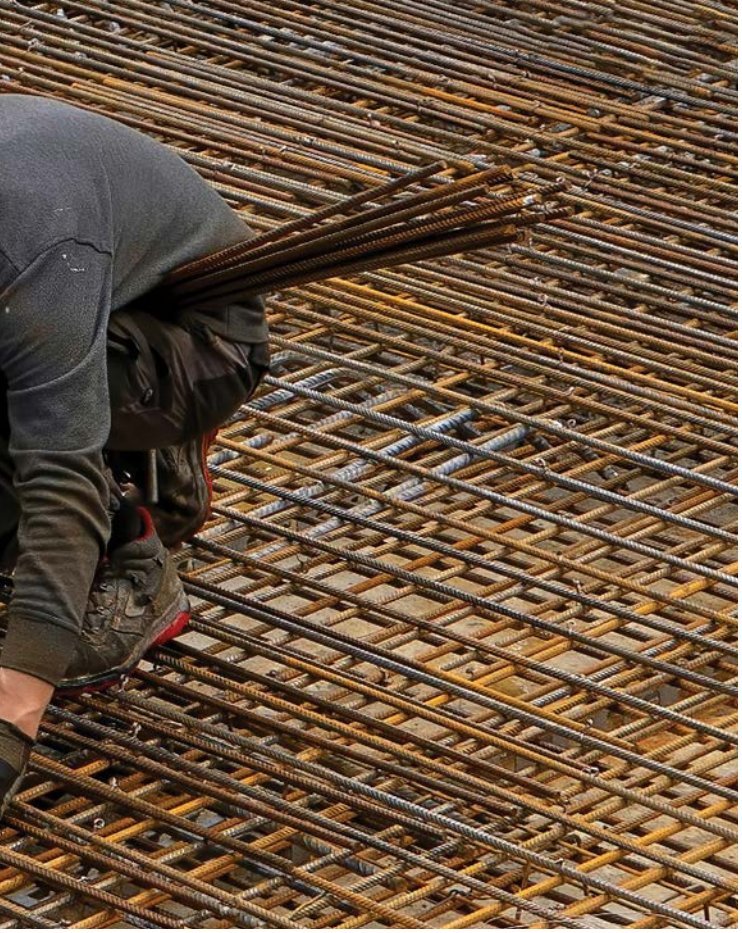
Yet the distance between theory and practice has proven vast. An analysis of 212 major infrastructure projects initiated under the SIPDM framework between 2017 and 2023 reveals that 68% experienced significant delays, while 74% exceeded their original budgets by more than 25%. These statistics tell a story of systemic failure – not of the framework's design, but of its implementation.

The skills conundrum

In Mpumalanga's rural municipalities, procurement officers with limited technical training struggle to navigate complex documentation requirements. In Cape Town, project managers juggle responsibilities across multiple infrastructure initiatives without specialized training in the SIPDM's governance structures. Across the country, a critical skills deficit undermines even the best-designed procurement frameworks.

The skills deficit manifests across multiple dimensions

- **Technical Expertise** Many implementing agencies lack officials with engineering backgrounds who can effectively evaluate technical proposals or manage complex infrastructure projects.



- **Procurement Specialisation** The SIPDM requires sophisticated understanding of contract management and procurement strategies that exceeds the general training most public servants receive.
- **Project Management Capabilities** Infrastructure projects demand rigorous scheduling, resource allocation, and risk management – specialised skills that remain in short supply throughout the public sector.

A 2023 audit of skills in 38 municipal infrastructure departments revealed that less than 22% of staff responsible for SIPDM implementation had received comprehensive training on the framework, while only 17% possessed the technical qualifications ideally required for their positions.

Implementation challenges manifest in various forms across the infrastructure delivery chain:

At the Mbombela Local Municipality, a single procurement officer handles infrastructure projects worth hundreds of millions of rand, without dedicated technical support. In the Department of Water and Sanitation, high staff turnover has resulted in institutional memory loss regarding complex SIPDM procedures. Meanwhile, at provincial departments of public works, officials report spending up to 70% of their time on compliance documentation rather than actual project delivery.

The United Kingdom model: a potential path forward

Across the Atlantic, the United Kingdom has confronted similar challenges with notably different results. Following widespread criticism of infrastructure delivery in the early 2000s, the UK embarked on a fundamental reimagining of its approach to major projects.

The establishment of the Infrastructure and Projects Authority (IPA) represents perhaps the most significant innovation. Unlike South Africa's fragmented institutional landscape, the IPA serves as a central body responsible for infrastructure delivery across government. It combines oversight functions with active support, maintaining a "Projects Academy" that develops capabilities while establishing clear standards for project governance.

Dr. James Wilson of the University of Manchester, who has studied the UK's infrastructure governance evolution, notes: "The IPA succeeded where previous reforms failed because it recognized that standards without support are ultimately meaningless. They built capabilities alongside compliance requirements."

The UK approach differs from South Africa's SIPDM in several critical aspects:

Proportionality: The UK framework applies different levels of scrutiny based on project risk and complexity, avoiding the one-size-fits-all approach that has burdened South African projects.

Integration: Rather than treating procurement as a standalone function, the UK model integrates it within broader project delivery methodologies.

A new paradigm for South Africa

The time has come to recognize that the SIPDM requires fundamental reconsideration. This does not mean abandoning its underlying principles of standardization, transparency, and value for money. Rather, it demands an honest assessment of implementation challenges and a willingness to adapt the framework to South Africa's institutional realities.

Infrastructure South Africa (ISA), established in 2020 as a division within the Department of Public Works and Infrastructure, offers a potential institutional home for a reformed approach. Currently focused primarily on project preparation and investment promotion, ISA could evolve to play a role similar to the UK's Infrastructure and Projects Authority – combining oversight functions with active capability development.

Such a transformation would require clarifying the relationship between ISA and existing institutions like the Construction Industry Development Board (CIDB). While the CIDB has historically focused on contractor registration and industry development, a reformed infrastructure delivery system might see it working in closer partnership with ISA – the former focusing on industry capability while the latter addresses public sector implementation.

A reformed approach would likely include several elements:

- **Simplified Standards** Revising the SIPDM to create tiered requirements based on project complexity and risk, reducing unnecessary bureaucracy for straightforward initiatives.
- **Capability Development** Establishing a dedicated infrastructure academy under ISA to systematically build skills across implementing agencies.
- **Technical Support Teams** Creating specialized units that can provide hands-on assistance to departments and municipalities struggling with complex projects.
- **Digital Enablement** Developing technology platforms that simplify compliance and reduce the administrative burden of the SIPDM.
- **Outcome Focus** Shifting emphasis from procedural compliance to measurable project outcomes through reformed monitoring and evaluation mechanisms.

The Way Forward

South Africa stands at a crossroads. It can continue with the status quo – a sophisticated framework undermined by implementation failures – or it can embrace reform that acknowledges the realities of institutional capacity while building toward more effective delivery. ⊙

CONCOR PARTNERS WITH CAPE TOWN ON ANOTHER AFFORDABLE HOUSING PROJECT

Cape Town's stock of affordable housing units will be receiving another boost from Concor, following the company being awarded a centrally located land parcel less than a kilometre from the central train station.

The New Market Street site in Woodstock – currently leased as a parking lot – is one of several land parcels rezoned by the City of Cape Town and made available for the development of much-needed affordable housing. According to Mark Schonrock, Property Development Executive at Concor, the project will deliver at least 375 affordable rental housing units for qualifying residents who earn less than R22,000 a month. There will also be more than 400 residential units made available on the open market.

"Measuring just under a hectare in size, the site is remarkable for its prime location and scenic views," says Schonrock. "Located right on the edge of the city centre, it is well serviced by multiple public transport systems – making it incredibly convenient to reach workplaces, retail areas and other key amenities for residents."

The development is in Cape Town's PT2 Zone, he says, indicating that it provides easy access to the MyCiTi bus transit line – which has a station on the project's doorstep – as well as the train line, Golden Arrow buses and taxi routes. It is walking distance from the central station, and a similar distance from the Woodstock station.

Concor won the opportunity to develop the land parcel through its submissions to Request for Proposals (RFP) on an open tender basis issued by the City of Cape Town. This required a conceptual design with extensive input from architects, urban designers and consulting engineers working in partnership with Concor.

"Our depth of project management and construction experience, combined with our proven capability and Level 1 Broad-Based Black Economic Empowerment (B-BBEE) status, positions us well to conceptualise, plan and execute complex projects like these," he explains.

Concor has been leading the development of the 22 hectare Conradie Park project near Pinelands since 2019, which is on track to deliver over 2,000 affordable living units by the middle of 2026. Schonrock highlights that the New Market Street development will be an exciting contribution to the broader urban upliftment process underway in this part of the city.

For instance, the areas of Woodstock and Salt River have seen considerable upgrading in recent years and have been targeted for expansions to the University of Cape Town's academic and residential infrastructure. The City of Cape Town also recently announced plans to redevelop the iconic Good Hope Centre to enhance the area, so this will further improve the environment for the upcoming New Market Street housing project.

"Another outstanding feature of the New Market Street development will be its attractive views," he says. "The east-west alignment of the property means that Table Mountain will be visible from one side, and the foreshore and Table Bay from the other."

The mixed-use project will comprise two nine storey blocks up to a height limit of 25 metres. One of the buildings will be designated for affordable rental housing while the second block – accessed from the same central podium – will be for open market sectional title owners. The project will include some small-scale retail opportunities, although its proximity to the city gives residents ample access to the city's well-developed retail network.

Construction is expected to begin in the first quarter of 2026, kicking off a build timeline of about 22 months. To achieve this, Schonrock says Concor will continue its close collaboration with the relevant departments in local, provincial and national government as well as its professional partners in the private sector.

"As an established construction and development player in South Africa with a solid reputation in the sector, we are proud to partner again with the City of Cape Town in its forward-thinking land release programme to drive more affordable housing," he says.

The City of Cape Town has over 6 500 social housing units at various stages of the planning pipeline, across 50 well-located parcels of land. It is also encouraging national government to make its unused land in the city available for this programme. ⊙

BIG 5 CONSTRUCT SOUTH AFRICA RETURNS FOR ITS 12TH EDITION

South Africa's government has committed more than USD50-billion over the next decade towards construction and infrastructure development (source: Construct South Africa). Aligning with the country's ambitious plan, the 12th edition of Big 5 Construct South Africa and the inaugural South Africa Infrastructure & Water Expo will take place from 18 - 20 June 2025 at the Gallagher Convention Centre in Johannesburg.

Construction and infrastructure development are key to South Africa's economic growth, social progress and sustainability. With a USD125-billion construction market and a USD193-billion infrastructure market, the sectors support the National Development Plan 2030 and National Infrastructure Plan 2050 goals (sources: ABiQ). The inaugural South Africa Infrastructure & Water Expo directly addresses these pressing needs.

"The launch of South Africa Infrastructure & Water Expo alongside the 12th edition of Big 5 Construct South Africa reflects the ongoing transformation of the country's construction and infrastructure landscape," said Josine Heijmans, Senior Vice President – Construction, dmg events.

International exhibitors drive industry momentum

This year, visitors will have the opportunity to network and do business with a diverse line-up of exhibitors from over 20 countries, including Bahrain, Malaysia, Spain, Türkiye, the United States, United Arab Emirates, Saudi Arabia, Greece, Poland and more. Over 250 exhibitors will showcase unique products and services under diverse construction sectors, including concrete & cement, technology, building interiors & finishes, heavy construction equipment, machinery & vehicles, alongside the new sector for this year, power infrastructure & water management infrastructure.

"Big 5 Construct South Africa offers a powerful platform to connect with key decision-makers, showcase our innovations, and explore new market opportunities," said Keneilwe Nawane, Commercial Director, DeWalt South Africa. "As a first-time exhibitor, we are excited to be part of such a dynamic event that brings together the region's top construction players and drives industry growth."

CPD-certified sessions empower industry professionals

Big 5 Construct South Africa and South Africa Infrastructure & Water Expo offer several knowledge-sharing opportunities across a diverse range of content programmes, allowing visitors to meet with key decision-makers, government entities and industry leaders.

Through CPD-certified sessions, the event empowers industry professionals to share knowledge and advance their careers. Sessions at Big 5 Talks will provide practical insights across core industry themes such as project management, architecture & design, technology and sustainability, delivered by expert speakers.

This year, the event will also host the Infra360 Talks and Water360 Talks, offering actionable insights into South Africa's most pressing infrastructure and water challenges. Covering critical themes from smart infrastructure, mega projects and public-private partnerships to water efficiency, smart management systems and climate resilience, these sessions will spotlight sustainable strategies, emerging technologies and investment opportunities shaping the future of urban development and resource management in the region.

Exclusive access to sustainable infrastructure and water solutions

New in 2025, the pay-to-attend South Africa Infrastructure & Water Forum will include insightful discussions led by thought leaders, policy makers and innovators on themes, including sustainable infrastructure, water projects, unlocking investment and project partnerships.

"As the region continues to prioritise infrastructure and economic transformation, Big 5 Construct South Africa and South Africa Infrastructure & Water Expo will allow attendees to reconnect with the industry and facilitate growth and advancement for their ongoing and upcoming projects," concluded Heijmans. ⊙

John Stiff, partner and principal engineering geologist at SRK Consulting.

Basetsana Mmileng, senior engineering geologist at SRK Consulting.

Hennie Booyens, principal geotechnical engineer at SRK Consulting.

PROTECTING INFRASTRUCTURE AGAINST THE RISKS OF DOLOMITE GROUND

Sinkholes and subsidence in areas underlain by dolomite rock continue to pose considerable risks to infrastructure, requiring that developers carefully assess geological stability before designing any building or civil engineering works.

According to John Stiff, partner and principal engineering geologist at SRK Consulting, dolomite-related risks have been particularly high in areas of South Africa where mining has taken place – due to the extensive dewatering that typically accompanies mining activities.

"Groundwater fills the cavities within dolomite rock, exerting hydrostatic pressure that helps stabilise these voids," said Stiff. "When groundwater is removed during dewatering, this pressure is reduced, making the ground more prone to instability."

Equally, however, dolomite-related risks to infrastructure occur in non-mining areas due to the gradual dissolution of dolomite rock through geological time by slightly acidic rainwater.

"In Gauteng province, for instance, parts of Soweto, West Rand, East Rand and Centurion are underlain by dolomite," he explained. "Development in these areas has been plagued by sinkholes and subsidence, leading to significant damage. In mining areas, this risk can be magnified where tailings dams are operated of these ground conditions."

History of sinkholes

The country has in fact lost many lives in accidents caused by sinkholes. Among the well-known cases was a tragedy in December 1962 at West Driefontein Mine on Johannesburg's West Rand, when a three-storey crusher plant fell into a sinkhole – killing all 29 people in the building. Two years later, a family of five along with their live-in domestic worker were killed when a 100 m wide sinkhole swallowed their home in Carletonville.

"In response to these disasters, South Africa introduced stringent regulations and standards to manage the risks associated with infrastructure and development on dolomitic ground," he said. "These include the current South African National Standards (SANS) 1936, which provide guidelines for geotechnical investigations, risk assessment and mitigation

measures." The risks associated with dolomite are not confined to South Africa. As SRK's experts have observed, regions such as the Katanga Copperbelt in the Democratic Republic of Congo (DRC) and parts of the Northern Cape also face similar challenges due to the widespread presence of dolomite rock. Rapid infrastructure development in mining countries like the DRC underscores the importance of effective risk management strategies.

Early identification

Ensuring the safety of human life and preventing damage to infrastructure starts with thorough geotechnical investigations of the area where developments are planned, according to Basetsana Mmileng, senior engineering geologist at SRK Consulting.

"Preventative measures include a dolomite risk management strategy, conducted in accordance with the standards and regulations," said Mmileng. "This is a proactive way to mitigate the risk of these incidents occurring, and ensuring that your land use and infrastructure design is suitable for these conditions."

Techniques such as gravity surveys are used to identify anomalies in the subsurface, indicating voids or weak zones. Hennie Booyens, principal geotechnical engineer at SRK Consulting, highlighted the importance of integrating findings from geophysical surveys with detailed drilling programmes. Percussion or rotary core drilling is employed to investigate the

site in more detail, and to gain a comprehensive understanding of site conditions. This approach allows the investigation team to identify potential hazards early, said Booyens, and to guide the development of tailored solutions.

Tailings storage facilities (TSFs) represent mining infrastructure which is particularly vulnerable in the context of dolomitic ground, said Stiff, because they contain such large volumes of water.

Instability, contamination

"If you have concentrations of water – either in the pipes delivering tailings product or even in the separation of water in the TSF itself – this can cause problems by leaking into the substrate," he said. "Sinkholes can form directly underneath the tailings dam, leading to structural instability, groundwater contamination or, in severe cases, dam wall failure."

For these reasons, Booyens emphasised that the basin of a tailings dam is a critical area for investigation prior to construction.

"The liner under a tailings dam, while effective to a degree, has limitations and cannot fully mitigate the risks posed by unstable dolomitic ground," he explained. "If you have sinkhole formation in the basin of the facility, there's only so much strain that the liner can accommodate before it ruptures and water and tailings starts seeping into the substrate and groundwater."

These factors further demonstrate why careful site characterisation and risk assessment are vital to ensure the long-term stability of these facilities. Mmileng added that risks extend beyond the TSF itself.

"It is also crucial to understand what this failure would mean to surrounding infrastructure," she said. "For example, if there's a ventilation shaft system nearby, subsidence in the TSF could cause damage to these facilities as well."

Key skill sets

SRK Consulting's long history of involvement in dolomite investigations, and the depth of expertise it has developed in this field, are demonstrated by having certified Level 4 dolomite specialists in its ranks.

"Recognised for their expertise and contributions to the field, a Level 4 dolomite specialist has over 10 years of experience in dolomite investigations and risk management," said Mmileng. "They can assess and manage risks, characterise sites and ensure compliance with the standards."

Investigations are most effectively conducted by multidisciplinary teams, with a key collaboration between engineering geologists and geotechnical engineers.

"Engineering geologists characterise the karst conditions on the site, while the engineers design the solutions and mitigating measures that help prevent failures and safeguard the structures," said Stiff.

The company also boasts its own in-house geophysicists, which sets the company apart. This facilitates the ground characterisation phase with gravity or resistivity surveys, ensuring a detailed understanding of subsurface conditions.

"The analysis of geophysical data is only as good as the interpretation, which is handled by our skilled in-house team," he said. "This streamlines the accurate identification of anomalies during the early stages of a project – which in turn helps with the design of targeted interventions, saving time and costs in the long run."

He added that expertise in groundwater management is also vital to the team.

"One of the critical factors is the groundwater – not only because it is at risk of pollution, but because groundwater is a key factor in the stability of the ground," he explained. "If the underground dolomitic cavities are water-filled, the risk of subsidence is mitigated." ⊙

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