CONCRETE CONNECT

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ISSUE: 4/2026

CAPTAIN PRECAST

TAKES UP THE FIGHT FOR BETTER CONCRETE KNOWLEDGE

NEW SANS CODE FOR STRUCTURAL CONCRETE

CONSTRUCTION GROUP OPENS NEW HEADQUARTERS

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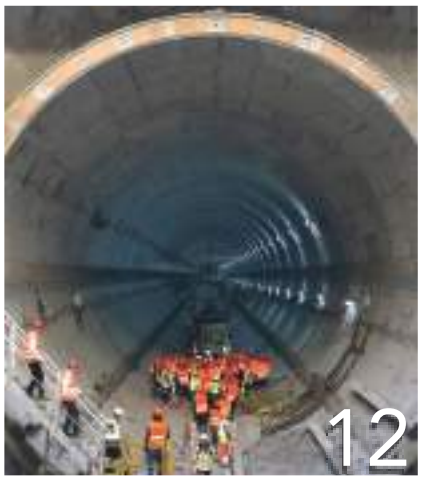

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CAPTAIN PRECAST
TAKES UP THE FIGHT FOR BETTER CONCRETE KNOWLEDGE

"New CMA mascot set to become the construction industry's most approachable technical expert."

The Concrete Manufacturers Association (CMA) is bringing the power of live digital communication to the construction industry with the introduction of its Captain Precast mascot who will bring his technical knowledge about precast concrete to all involved in the built environment.

The character of Captain Precast is aimed at helping concrete manufacturers to manufacture better products and introduce his technical knowledge to architects, engineers, contractors, developers and end to use precast products more effectively through short, practical pieces of technical advice delivered through social media, WhatsApp and other digital platforms.

Speaking to Concrete Connect recently, CMA General Manager Henry Cockcroft explained that the concept was born during routine certification audits where the association repeatedly encountered small but important technical issues that could easily be avoided if the correct information reached the industry more effectively.

"We realised that during audits we continually identify small issues that have a significant impact on product quality. Simple things like how to correctly measure the width of a concrete pipe, where packing pieces should be positioned during tensile splitting strength tests or changes to specifications. These do not require lengthy technical papers but they are incredibly valuable to manufacturers and users," says Cockcroft.

He explains that instead of producing lengthy technical documents that many people simply never read the CMA decided to package these valuable insights into short video clips

and concise technical tips that can be consumed in seconds. Each message will carry a simple introduction such as 'Captain Precast says...' and then giving practical pieces of advice that users can immediately apply.

He is being seen as a technical expert with a real personality who has deliberately been designed as an independent social media personality rather than another corporate spokesperson. It is hoped this approach will align better with modern communication habits particularly among younger professionals entering the construction industry.

"The CEO standing in front of a camera speaking formally certainly has its place, but Captain Precast is more like the industry's best friend. He's approachable, direct and speaks in a language people relate to." That freedom allows him to communicate messages in a more conversational and memorable way while still remaining technically accurate. Captain Precast can deliver practical advice much more directly. If poor manufacturing practices are likely to result in inferior products he can say exactly that before directing manufacturers towards the relevant CMA manuals or South African National Standards that explain the correct procedures.

"Captain Precast is going to be less diplomatic and much more to the point. He will provide information that people can immediately apply to improve product quality and will turn technical knowledge into everyday conversation. We find that one of the biggest challenges facing any technical association is ensuring valuable information actually reaches the people who need it. Rather than expecting busy professionals to search for technical documents Captain Precast will continuously push relevant content directly to the industry through Facebook, LinkedIn and WhatsApp.

"We have already strengthened the CMA's digital presence by obtaining Meta verification for our social media platforms in order to increase our digital credibility and so expand our audience reach. Captain Precast will also have his own dedicated WhatsApp number allowing users to receive updates and interact directly with the character. We even have future plans to include integrating Captain Precast into the CMA website as an interactive chatbot capable of answering common technical questions," says Cockcroft.

But behind the scenes he adds the reality is that the responses will come from CMA technical specialists and certification experts who will still re-

main informal and approachable through the Captain Precast persona. This is necessary because his audience extends to everyone involved in construction. That includes architects specifying products, consulting engineers designing structures, quantity surveyors, developers, contractors, municipal officials, manufacturers, distributors and ultimately the end users of precast concrete products.

To start with topics will range from manufacturing quality and compliance with South African National Standards through to product selection, installation guidance, durability, availability of products and where suitable suppliers can be found. Captain Precast will also help explain changes to standards and common quality problems encountered throughout the industry. Rather than waiting for people to encounter problems Captain Precast can proactively explain why they occur and how they can be prevented through correct manufacturing practices and appropriate material selection.

Real world experience

Unlike fictional superheroes, Captain Precast's real superpower is knowledge. His expertise is built on decades of collective experience gathered by the CMA's certification teams during hundreds of factory audits conducted throughout South Africa. Each audit presents new learning opportunities and practical examples and may even produce valuable video footage that can be transformed into future educational content. The constant flow of real-world information will also be used to continue expanding his knowledge.

"We know that if the content carries value, he'll become popular and if it's boring people will ignore him and that is why we want to focus on practical useful information rather than generic promotional messages with each message intended to solve a real problem, answer a common question or highlight an issue that directly affects product quality. The hope is that users will begin sharing Captain Precast's advice with colleagues and so create a growing community built around better technical understanding of precast concrete. The CMA wants to create a platform that speaks equally to experienced manufacturers and young engineers with the aim of raising awareness of the many uses of Precast concrete correctly and the importance of quality when using it," says Cockcroft.

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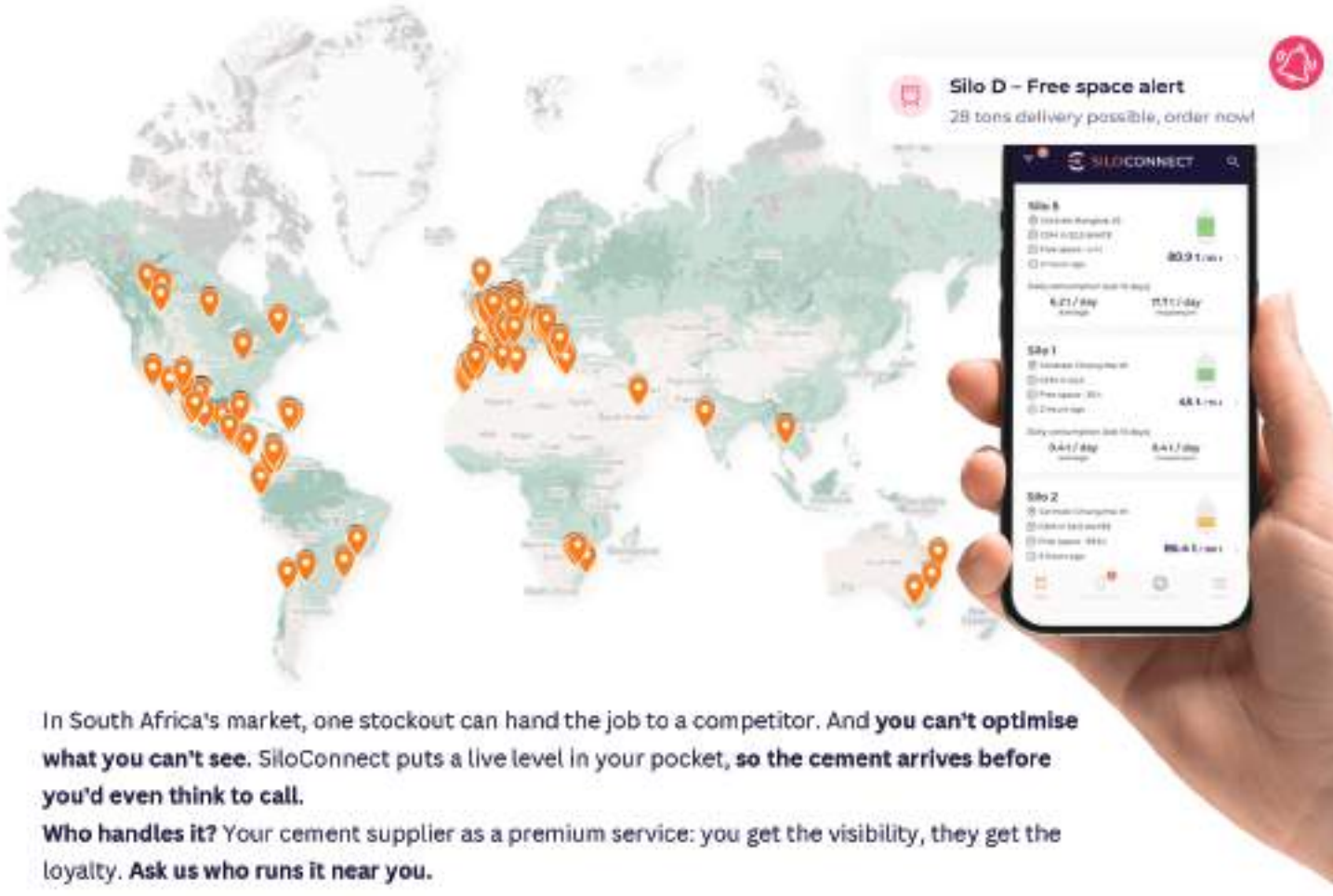

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MARGIN SQUEEZE FOR CONCRETE PRODUCT MANUFACTURERS

For concrete product manufacturers operating on narrow margins, improved process discipline can make the difference between loss and long-term sustainability.

Concrete product manufacturers (CPMs) in South Africa are facing a tightening margin squeeze with rising input and transport costs set to place further pressure on already constrained operations. According to AfriSam, this environment is forcing manufacturers to re-evaluate how they manage production efficiency, quality control and risk.

While the construction sector has shown early signs of recovery many CPMs have yet to benefit from increased infrastructure spend. Instead their exposure to smaller, interest rate-sensitive projects leaves them vulnerable to market fluctuations. At the same time, higher fuel prices are driving up transport costs further eroding profitability.

"Our CPM customers generally operate on very thin margins and their position looks likely to get more difficult," Mike McDonald, manager of AfriSam's Centre for Product Excellence (CPE), says. "This means there is less room for disruption, breakage or errors in their process and a greater need for continuous monitoring and quality control."

McDonald highlights that many manufacturers still rely on broad cost-per-unit metrics which often overlook hidden inefficiencies such as breakages and material wastage. These factors not only impact productivity but can also introduce significant commercial risk if product failures occur after installation.

AfriSam is increasingly working with CPMs to quantify and reduce these inefficiencies, linking improved data tracking directly to mix design optimisation. By refining material combinations and production processes, manufacturers can reduce breakages and build more consistent cost-effective operations.

According to Adele Wentzel, sales manager cement manufacturing Gauteng at AfriSam the complexity of concrete inputs adds another layer of risk particularly when cost pressures push manufacturers to consider alternative materials.

"From cement, sand and aggregates to fly ash, slag and admixtures, every component must be carefully assessed for compatibility and performance. Substituting materials to reduce costs can introduce significant variability if not properly evaluated," she explains.

AfriSam's technical support extends beyond material selection to include production practices such as curing regimes, temperature control and batching accuracy. In some cases, this involves rethinking traditional approaches including reducing reliance on energy-intensive steam curing through more advanced cement systems and admixture strategies.

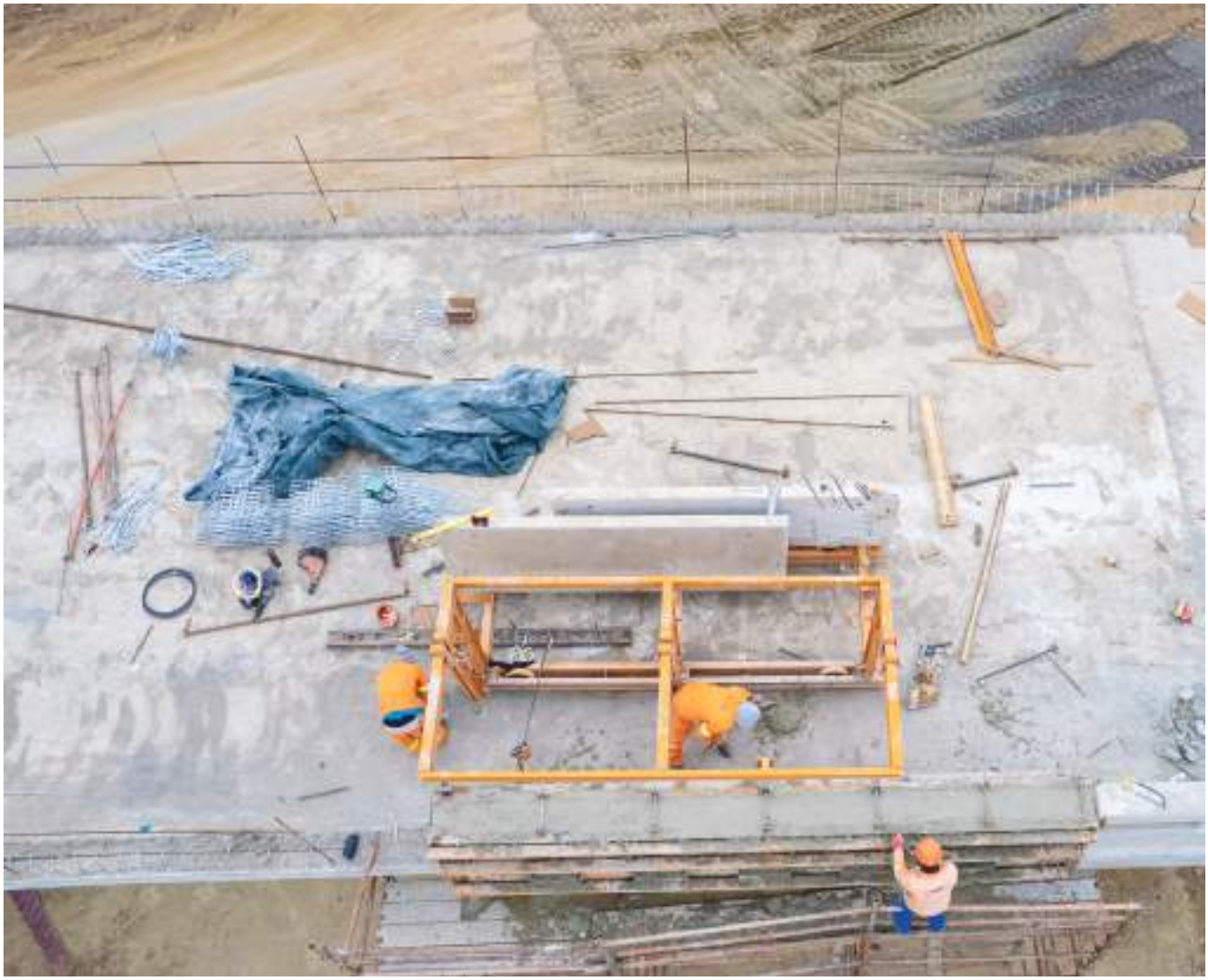
The company also emphasises the importance of real-time monitoring, using tools to track variables such as temperature and humidity, which can fluctuate significantly and impact product quality.

"Even small inconsistencies, like poor curing room control, can have serious consequences for strength development and production timelines," McDonald notes.

As cost pressures intensify, AfriSam believes that closer technical collaboration between suppliers and manufacturers will be critical. In a market where differentiation is increasingly difficult, the ability to balance cost, quality and risk could determine long-term sustainability.

"In this challenging environment CPMs need trusted partners to help them optimise processes and manage complexity," McDonald concludes. "Those who can do this effectively will be best positioned to remain competitive."

AfriSam is helping concrete product manufacturers tighten process control and reduce waste as margin pressures intensify across the sector.



In a volatile market, technical partnerships and quality monitoring are becoming essential to improving efficiency and protecting profitability.

CEMENT FLEET OPTIMISATION

WITH LESS TRUCKS AND MORE DELIVERIES

Without real-time visibility into the client cement silo levels logistics teams are left at the mercy of last-minute orders and this has a negative effect on the cement industry's fleet management.

The result is that oversized fleets are maintained solely to absorb morning demand peaks with trucks idling in the afternoon. For a logistics director managing several sites it means starting each day already behind a schedule with his team chasing silo levels by phone and covering emergency runs.

It does not have to work this way, says Mathieu Crochin, Africa sales manager for technology company Nanolike, the supplier of SiloConnect solutions in South Africa. "By shifting from a reactive model to a predictive one based on Vendor Managed Inventory (VMI), it is possible to reverse this dynamic."

This is how real-time data access enables smarter logistics using fewer trucks:

- Delivery is triggered automatically once a silo has room for a full truckload with no more manual level checks or phone calls required
- Cement manufacturers globally report cutting morning delivery peak by 6 percent and shifted volume to the afternoon.
- Fewer emergency shipments and better use of owned and third-party trucks mean lower transport costs for the same delivery volume.

Crochin continues that historically delivery management has relied on time-consuming processes with routine calls to plant operators, manual inventory checks and constant negotiations for delivery slots. Deploying a simple electronic VMI system on client silos fundamentally changes how teams operate. By relying on 24/7 fill-level data that is automatically collected and shared logistics teams no longer need routine calls.

They shift from a reactive stance to initiative-taking scheduling. Consequently a delivery can be triggered automatically as soon as a silo frees up enough space for a full truckload. The system sends an alert the moment that threshold is reached. The daily challenge is no longer finding a truck for an emergency run but rather optimizing dispatch schedules to deliver more tons with the same fleet.

Holcim France example

"Across the globe the challenges are the same. Morning congestion is a major pain point in cement logistics and before adopting SiloConnect to digitalize its silo monitoring, Holcim France's logistics were heavily concentrated in the early hours of the day which severely limited operational flexibility.

"Without visibility into client silo levels most orders had to be placed early in the morning which created daily delivery peaks and made proactive planning almost impossible. Through

predictive scheduling and anticipating customer needs the company successfully rebalanced its flows and reduced morning peaks with deliveries made before 9:00am dropping by 6 percent (from 34% to 28%). Afternoon surge deliveries scheduled between 3:00 p.m. and 6:00 p.m. more than doubled (from 9% to 21%). This more even distribution drastically reduced congestion at peak hours and improved overall operational flexibility."

Crochin explains that balanced delivery schedules translate directly into lower transport spending. For the finance department the benefits are concrete and measurable and smoothing deliveries across the day and anticipating client orders the company can significantly reduce emergency shipments which are often the most expensive to execute. In addition, it can optimise both owned and third-party transport fleets, as well as reduce the total number of trucks required to manage the exact same delivery volume.

Behind these productivity gains lies a major human advantage of stress reduction. Smoother schedules mean optimised driver shifts with less idle time waiting at the plant and customers who never have to worry about running out of stock.

Nathalie Herrero, Logistics and Planning at Holcim France, sums it up, "With SiloConnect, we managed to smooth out our deliveries throughout the day, reducing the morning rush and optimizing truck usage. It has brought peace of mind to our teams and customers with fewer last-minute changes, less time on the phone and greater flexibility in planning our routes."

When silo levels are visible 24/7 scheduling becomes a planning exercise instead of a daily emergency. By connecting silos and adopting a VMI approach logistics stops being a reactive cost centre and becomes a real driver of profitability and customer satisfaction.

DRY-COATING MAKES RUNNING SURFACES OUTLAST THE LINE

Engineered polymers manufacturer, igus, has developed a unique tribological dry coating for high-throughput packaging and manufacturing plants such as cement, grout and hardware packaging to reduce friction and wear.

In these applications where leakage may cause abrasion it is the friction that is the silent productivity killer and is responsible for wearing chutes and guides as well as snagging transfer points leading to increased maintenance requirements and reduced productivity.

In South Africa igus is introducing the newly developed iglidur coating technology to companies that require continuous duty manufacturing and packaging operations where the coating turns standard metal components into low-friction, self-lubricating surfaces built for continuous duty.

"This removes friction from the equation without introducing maintenance complexity. The coating allows operators to upgrade existing steel components into engineered sliding surfaces that run clean, dry and predictably over long cycles," says igus South Africa managing director, Ian Hewat. "

He says cement bagging, additive manufacturers, construction chemical suppliers and others have the same challenge where products slide down chutes are oriented and transition between conveyors in contact with steel. Over time that interaction drives abrasion and leads to material build-up and eventually impacts the smooth flow of the items down the process.

Applied as a powder and baked onto conductive metal surfaces, the coating forms a durable, uniform layer with a defined coefficient of friction. It prevents wear and buildup by embedding solid lubricants within a polymer matrix and the outcome is a controlled sliding interface that operates entirely without oils, greases or any other lubricant.

Simple process

Components are first prepared and cleaned to ensure proper adhesion whereafter the iglidur powder is ap-

plied electrostatically allowing it to evenly coat complex geometries. Once coated the component is cured in an oven where the material bonds to the substrate and forms a robust tribological surface. For powder coaters this represents a natural extension of existing capabilities and is a value-added service that they can offer to industrial clients to increase their revenue.

The coating is suitable in a wide range of applications including transfer plates in conveyor systems, chutes in production or distribution centres, vibratory and spiral conveyor systems, food packaging and sorting equipment and many others. igus offers a range of coating variants engineered for specific operating conditions, from general-purpose wear resistance through to high-temperature and chemically aggressive environments. Food-grade options are available with blue-coloured variants supporting visual detection in sensitive processing lines which is an increasingly important requirement in modern food operations.

Critically, the technology is not limited to new equipment. Existing systems can be retrofitted using coated plates or flexible coated mesh, allowing operators to upgrade performance without replacing hardware. This aligns with a growing industry focus on lifecycle optimisation and cost control.

"South African operators are under pressure to do more with less and igus coatings offer a practical route to extend equipment life and stabilise processes without redesigning the entire system," Ian concludes.

STRENGTHENS STRUCTURAL WATERPROOFING

By preventing water ingress, ADCOR 500S helps protect critical concrete structures and supports long-term structural integrity.

As infrastructure projects across Southern Africa continue to place increasing emphasis on durability, long-term performance and lifecycle cost efficiency, effective waterproofing at structural joints remains a critical component of quality construction.

Andries Janse Van Rensburg, Specialty Materials Head – Infrastructure BU, Chryso Southern Africa.

Responding to this need Chryso Southern Africa continues to support the market with ADCOR 500S, a high-performance hydrophilic waterstop solution engineered to prevent water ingress through concrete construction joints and penetrations.

ADCOR 500S is a conformable, butyl rubber-based hydrophilic waterstop strip that expands on contact with water. Once fully encapsulated within poured concrete, the controlled expansion creates a robust seal against adjacent concrete faces, effectively preventing water entry into below-ground and other water-sensitive structures.

This makes the product particularly well suited to critical applications such as basements, retaining walls, pile caps, floor slabs, lift pits, tunnels, water-retaining structures and pipe penetrations, where waterproof integrity is essential to long-term structural reliability.

According to Andries Janse Van Rensburg, Specialty Materials Head – Infrastructure BU, Chryso Southern Africa, waterproofing failures at construction joints can have significant implications for structural durability, maintenance costs and operational continuity.

"Water ingress through joints remains one of the most common risks in below-grade and water-retaining concrete structures. ADCOR 500S provides a highly reliable and technically advanced sealing solution that responds directly to the presence of moisture, creating an active barrier where it is needed most," Janse Van Rensburg says.

A key differentiator of ADCOR 500S is its controlled volumetric expansion which reduces the risk of concrete spalling while maintaining cohesive strength after expansion. Unlike conventional bentonite-based systems the product is designed for reproducible swelling performance, even after repeated wet-dry cycles, ensuring long-term sealing integrity in demanding environments.

The product is also highly malleable and conformable, allowing for easy application to irregular substrates and

ADCOR 500S is engineered to deliver reliable waterproof performance in demanding structural environments.

complex concrete profiles. This flexibility simplifies installation on site and supports quality workmanship across a wide range of project conditions.

"With modern infrastructure projects becoming increasingly complex, contractors require waterproofing systems that combine performance with ease of installation," Janse Van Rensburg explains. "ADCOR 500S offers both technical reliability and practical site advantages, helping to reduce installation risk while supporting long-term structural durability."

The waterstop system is designed to withstand hydrostatic pressure of up to 70 metres and delivers a minimum volumetric expansion of 100%, making it particularly effective in high water table environments and critical civil engineering applications.

As part of Chryso Southern Africa's broader waterproofing and construction chemicals offering, ADCOR® 500S reinforces the company's focus on delivering advanced, fit-for-purpose solutions that enhance the performance and longevity of infrastructure assets across the region.

Designed to seal vulnerable construction joints, it helps prevent water ingress where structures are most at risk.

NEW SANS CODE FOR STRUCTURAL CONCRETE

Dr Kim Timm of Stellenbosch University

Concrete Society of Southern Africa (CSSA) recently hosted a series of well attended seminars to introduce and discuss the new SANS 51992-1-1 concrete code which fundamentally changes the way structural concrete is manufactured and delivered in South Africa.

Introducing the code, Dr Kim Timm of Stellenbosch University told the audience that the introduction of the code represents a landmark change in South African structural engineering moving from the trusted but ageing SANS 10100 Eurocode based specification for reinforced concrete design to a modern framework aligned with international practice.

"The pace of research and the introduction of more advanced materials have dramatically changed the way we build and concrete strengths now commonly specified at 50 MPa were considered exceptional back then. There have also been advances in the understanding of creep, shrinkage and durability - the world has unfortunately moved on.

"The decision to adopt Eurocode 2 rather than attempt another revision of SANS 10100 was not taken lightly and was debated whether to update locally or to harmonise with international standards. The Eurocode was ultimately chosen over the American ACI code because of South Africa's historical ties to British practice and the smoother technical fit.

"This resulted in SANS 51992-1-1 which was formally accepted in 2025 and overlays Eurocode 2 with a National Annex tailored to South African conditions. This annex ensures that local material properties, durability requirements and environmental factors are properly accounted for while maintaining full compatibility with the European framework," Timm said.

She explained that the new specification introduces a different structure and terminology. Where SANS 10100 offered a user friendly layout the Eurocode follows a more integrated flow beginning with the basis of design and referencing the updated loading code before progressing through material models, durability, structural analysis and finally ultimate and serviceability limit states.

Loads are now referred to as "actions" distinguishing permanent, variable and accidental influences. Fire design provisions which were embedded in SANS 10100 have been carried into the National Annex with Eurocode Part 2 available for more complex cases such as high rise structures requiring extended fire resistance.

"The transition will not be easy for engineers and technical staff with decades of experience under the old code. Yet the adoption of Eurocode brings consistency and international credibility, as well as making available literature and supporting materials such as concise guides and textbooks that are available internationally and will ease the learning curve. This is important because we have to remember that the old code will be formally withdrawn in December 2026," Timm concluded.

SANS 51992-1-1 FOR RIETVLEI PUMP STATION

AECOM shared its early experiences applying the new SANS 51992-1-1 specification to its landmark project in the design of the Rietvlei Pump Station in the Western Cape.

Speaking at the Concrete Society of Southern Africa (CSSA) roadshow seminars on SANS 51992-1-1 recently AECOM technical director JP Rosseau gave a practical perspective on how the Eurocode based framework translates from theory into on-the-ground engineering and highlighted some of the challenges and the benefits of working under the new standard.

Rosseau explained that the Rietvlei project was chosen as one of the first opportunities to implement the code in full and provide a test case for its application in South African conditions. The pump station itself is a critical piece of water infrastructure that

JP Rosseau - AECOM Technical Director

requires a highly durable design while adding the requirement for ease of serviceability for an extended lifespan. "It was the perfect project to put the code through its paces and our team had to adapt quickly to new terminology, calculation methods and the overlay of the National Annex.

"One of the most immediate differences was the shift from cube strengths to cylinder strengths in concrete design. While contractors continued to cast cubes on site the design team had to convert results using the prescribed tables and ensure that the correct values were applied in structural equations. This initially required careful coordination between site teams and designers but once the system was understood became straightforward.

"The project also highlighted the importance of serviceability checks - particularly crack control and deflection limits. With water retaining structures forming part of the pump station the tighter crack width limits of 0.2 mm had to be applied and this demanded meticulous detailing of reinforcement. This increased the design effort but ultimately improved confidence in the durability of the structure. We know these structures will be exposed to aggressive environments and the new code forces us to design for that reality.

"Shear design was another area where the new code approach differed significantly from past practice. The variable strut inclination method required engineers to think in terms of truss mechanisms within the concrete where balancing the contributions of steel and concrete is required at different strut angles. This was initially daunting but our team found that the method provided more flexibility and in some cases even provided more efficient reinforcement layouts than the old empirical rules," he said.

Rousseau concluded that the most valuable lesson from the Rietvlei project was the importance of interdisciplinary collaboration. The adoption of Eurocode principles meant that structural engineers, materials specialists and contractors had to work more closely than before in order to ensure that testing, detailing and construction methods aligned with the new requirements.

DESIGN AND STRUCTURAL ANALYSIS OF CONCRETE

Structural engineers and concrete professionals will need to follow a new set of rules relating to construction projects as the new SANS 51992-1-1 code for structural concrete is introduced.

Following her introduction to the new specification at the Concrete Society of Southern Africa (CSSA) roadshow seminars, Dr Kim Timm of Stellenbosch University, said the introduction of the code changes the way South African professionals approach design and analyse concrete structures. Following a five-year lead-in period adherence to the code becomes mandatory in December 2026.

"It is however important to know while the framework may look different the fundamentals of concrete behaviour remain unchanged. "Concrete is still concrete and if you end up with three times the reinforcement, for example, you've made a mistake in the calculations because the code does not change physics.

"This also applies to the long established South African loading code which remains intact and was already adapted from Eurocode principles in earlier revisions. The familiar SANS 10160 continues to govern actions with permanent, variable and accidental loads ensuring continuity in practice. What changes is the way these actions are integrated with material resistances through the Eurocode's reliability framework," Timm said.

She explained the concept of characteristic values which underpin the partial factor method. Instead of relying on mean values of material strength or loading, engineers now design with values that statistically account for variability. For materials this means assuming that only five percent of the concrete or steel will be weaker than the design value. For loads, this means factoring them so that only five percent of cases exceed the assumed maximum to ensure that resistance always remains on the safe side of applied actions. South Africa's reliability class adopts a slightly different beta value than Europe and reflects local balances of risk, cost and consequence but the principle remains the same.

The local interpretation applies primarily for reliability class 2 structures such as office blocks, residential buildings and public facilities where failure would have significant but not catastrophic consequences. For lower risk structures such as farm sheds reduced factors may be applied. Conversely for hospitals, communication hubs or other critical infrastructure require higher reliability demands either through increased load factors or enhanced design and construction supervision.

In terms of structural analysis where code introduces more explicit guidance than its predecessor professionals are required to consider not only the completed structure but also the stages of construction and recognise that transitional phases can impose different load effects. Analysis methods therefore range from linear elastic to plastic and nonlinear approaches, each with their own rules for application. Linear elastic analysis remains the baseline assuming materials behave proportionally within their elastic range.

Limited redistribution of moments is permitted, acknowledging that concrete will crack and forces will shift, but within controlled limits that are typically around fifteen percent. Plastic analysis, yield line methods and strut and tie models are available for more advanced cases while nonlinear analysis offers the most accurate results but demands significant computational effort and expertise.

Although shortcuts do exist she cautioned against over reliance on these as the original code provides conservative default options and where efficiency is required these may not be the most suitable. "The more shortcuts you take, the less efficient and more costly your buildings become and professionals should strike a balance between streamlined design and rigorous analysis. It is also important to correctly model foundations for different structures rather than relying on shortcuts as flexible superstructures distribute loads differently from rigid ones and that settlement behaviour must be properly accounted for," Timm cautioned.

She concluded that although the new SANS 51992-1-1 uses unfamiliar terminology and more complex layouts the underlying engineering principles remain consistent. By adopting Eurocode methods while tailoring them to South African conditions the code provides a framework that is aligned with modern techniques and materials.

MATERIALS AND DURABILITY IN THE NEW CODE

"Concrete itself has not changed but our understanding of its behaviour has deepened and the new SANS 51992-1-1 that comes into full effect in December 2026 code now reflects decades of international research that includes new practises and stronger materials."

This is according to Dr Kim Timm of Stellenbosch University speaking at the recent Concrete Society of Southern Africa (CSSA) roadshow seminars to familiarise the industry about the new code adding that it shifts focus to the practical realities of new materials and durability under the new code especially where high strength concretes are becoming more common well above 90 MPa.

Diving straight into the crux of the talk on materials and durability she stressed that in the South Africa's National Annex there is a note of caution where higher strengths are technically permitted and engineers may specify 80 MPa or more, but they must demonstrate compliance through testing, particularly for shear behaviour, creep and shrinkage. In many cases, the Annex advises reverting to the conservative limits of 50–60 MPa unless robust evidence supports higher values. This balance, she added, reflects the country's pragmatic approach to durability.

"Looking at the new code it will be evident that a critical change lies in the way compressive strength is defined. Where SANS 10100 relied on cube tests the Eurocode derived SANS 51992-1-1 code uses cylinder strength (fck). Although contractors might still cast cubes on site, designers must convert results using established tables because cylinder strength typically sits at 80–85 percent of cube strength and the code provides "cheat sheet" tables to simplify the conversion. This distinction is vital because if you ever put your cube strength directly into a cylinder equation, you'll be over designing your reinforcement and undermining your structure.

"The code also introduces additional factors to account for long term effects. The ηcc factor adjusts compressive strength for creep and sustained loading while the Kt factor allows modest increases for age related strength gains. South Africa's Annex aligns with the British approach setting ηcc at 0.85 rather than the Eurocode's recommended 1.0 in order to reflect local material realities. These refinements ensure that design strengths more accurately mirror how concrete behaves over decades as opposed to just laboratory tests," she said.

Timm shared insight into how durability models for creep and shrinkage have advanced and where SANS 10100 relied on empirical British data, the new code rather incorporates forty years of theoretical modelling. Shrinkage is now divided into drying shrinkage and autogenous shrinkage recognising both moisture loss and chemical reactions during hydration. The new models predict higher shrinkage values than the old code which is crucial for crack control and water retaining structures. Creep predictions are more difficult and avoids the overestimation common in earlier South African practice. This will improve long term performance especially in sensitive applications such as reservoirs and high rise slabs.

Reinforcement behaviour has also been updated where the old code had a more simple elastic plastic curve that flattened out after yield the SANS 51992-1-1 code allows for strain hardening for more efficient designs if the steel supplier can prove performance through testing. Local studies have shown that South African steels often do not achieve the same hardening levels as European products so the Annex advises caution. As a result, Class B ductility remains the default ensuring structures fail gradually rather than suddenly. "We prefer ductile performance. If failure ever occurs we want warning not brittle collapse."

She also warned against the casual use of mesh reinforcement in slabs which is becoming increasingly common in residential construction. Mesh often falls into Class A with lower ductility and may not provide the resilience required for structural elements. That is why is especially important for engineers to verify the class of steel before substituting mesh for conventional reinforcement particularly in critical applications.

The takeaway for concrete professionals is that SANS 51992-1-1 uses a more sophisticated understanding of concrete and steel tailored to South African practices. They key to successfully using it lies in mastering the requirements, converting cube to cylinder strengths, applying long term factors and ensuring ductility in reinforcement.

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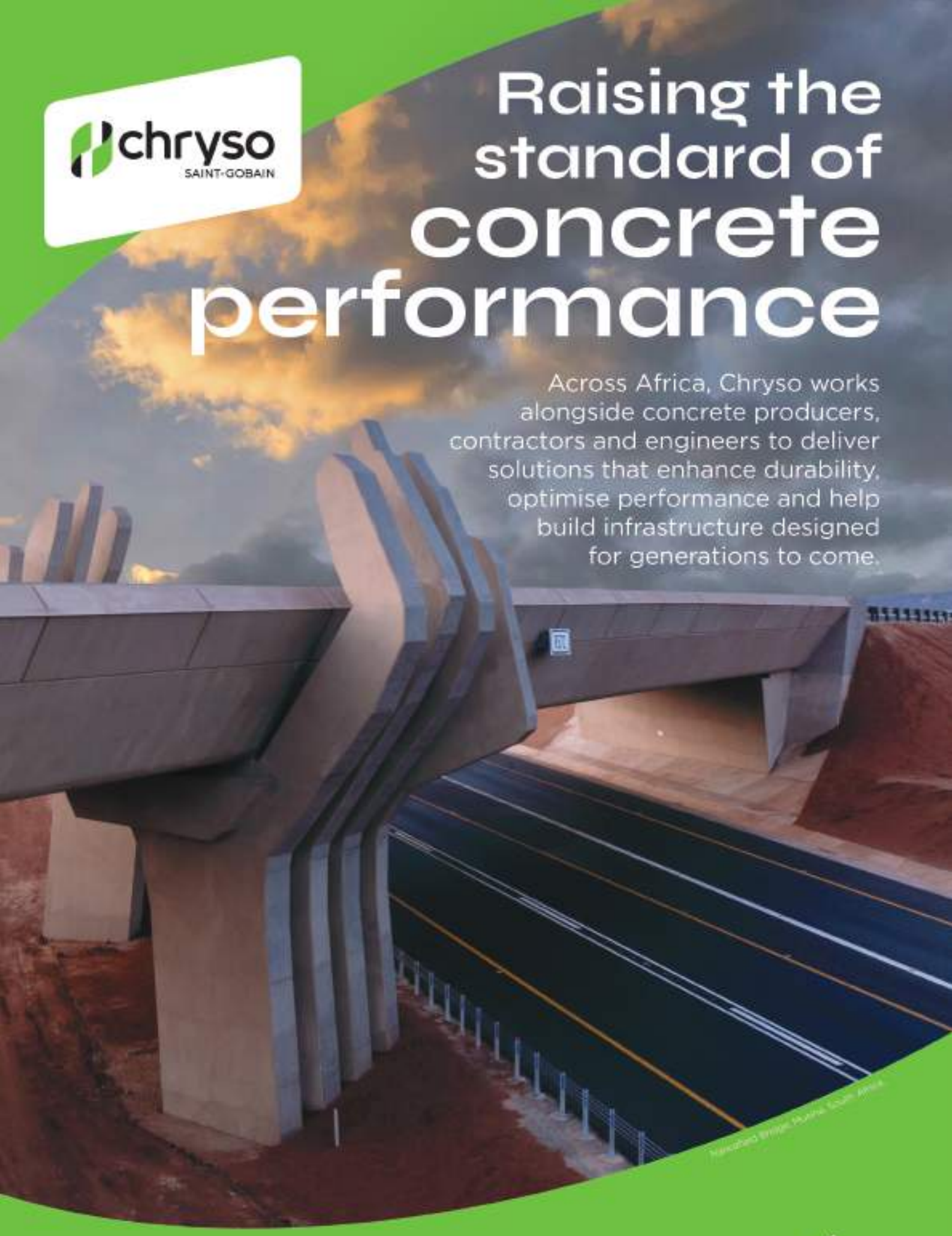

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NAVIGATING THE TRANSITION

Jack Huang - Consulting Engineer, Zutari.

Wrapping up the Concrete Society of Southern Africa's roadshow seminar on the transition from SANS 10100 to the new SANS 51992-1-1 well-known consulting engineer, Jack Huang of Zutari, detailed account of what the shift means for South African consulting engineers.

According to him there are a number of positives as the new code is broader and more integrated than its predecessor. It covers reinforced and prestressed concrete, buildings and general civil engineering works while also aligning with the wider suite of Eurocodes including actions, geotechnical design and seismic provisions among others. This integration provides engineers with a consistent design basis across disciplines which is something the old South African code could not offer. "The new code is continuously updated by thousands of researchers and reflects the latest understanding of structural behaviour worldwide."

He added that compatibility with international practice was another major advantage. By adopting the Eurocode 2 based SANS 51992-1-1 South African engineers can work seamlessly across Africa where many countries are either transitioning to Eurocodes or already using them adding that Zutari is already working on such projects in Ghana, Angola, Rwanda and Eswatini where Eurocode adoption opened doors to new markets and made collaboration with international partners smoother.

He also highlighted technical advancements as SANS 51992-1-1 offers higher modulus values for concrete with more realistic treatment of global second order effects and refined models for tall and complex structures. These changes make designs more accurate and often more efficient particularly for high rise buildings and advanced infrastructure. The adoption of the code also means that widely used international software packages now support South African practice directly and this has potential to improve workflow and quality assurance.

"But there are also difficulties because the Eurocode 2 is complex with extensive cross references and more stringent detailing requirements. Engineers accustomed to the simplicity of SANS 10100 may find themselves overwhelmed. You can't just flip to the section you need and plug in values and you often have to work back through multiple clauses, annexes and references which requires greater reliance on software and careful training.

"Bond and lap length requirements are another concern because under the new code lap lengths can be significantly longer than before especially under poor bond conditions and this complicates detailing in thick slabs, deep beams and raft foundations. Shear design also changes fundamentally with the variable strut inclination model replacing the old empirical approach which may increase reinforcement quantities. Punching shear provisions are stricter with higher reinforcement demands in some cases and combined these shifts may raise costs and require careful explanation to clients who are used to leaner designs under the old code," Huang said.

He stressed that that consistency across the industry is vital. If some consultants adopt the new code rigorously while others cling to SANS 10100 discrepancies in reinforcement quantities and detailing will confuse clients and contractors. "We need to move together otherwise we risk undermining confidence in the profession."

SERVICEABILITY REQUIREMENTS FOR CONCRETE

Dr Kim Timm of Stellenbosch University speaking at Concrete Society of Southern Africa's (CCSA) SANS 51992-1-1 seminar in Kempton Park said the often-overlooked subject of serviceability limit states is critical to determine whether a structure can carry its loads safely and how that structure performs in everyday use.

She began the talk by stressing that concrete will crack and that the question is not whether cracks occur but rather whether they impair function, durability or appearance. In ordinary office buildings, a crack of 0.3 mm may be acceptable but in water retaining structures even 0.2 mm can compromise performance. This is because cracks provide pathways for moisture and chlorides which accelerate reinforcement corrosion and undermines durability. They can also create unacceptable visual blemishes particularly in architectural feature walls. The new code therefore sets clear crack width limits with South Africa's National Annex adopting 0.3 mm as the general threshold while tighter limits apply to special cases.

She explained that crack control can be achieved either through stress limitation or by directly calculating crack widths. Stress limitation ensures reinforcement remains below levels that would induce cracking. With the new code engineers are able to calculate crack widths using SANS 51992-1-1 equations which relate reinforcement spacing, bar diameter and strain distribution to expected crack widths. It is also worth noting in the code that it recognises that closer bar spacing reduces crack widths which is a principle long recognised in practice. "When I started work, the old guys would always say 12 mm bars at 150 spacing that was their answer to everything," she recalled. "Annoying at the time, but actually quite effective for crack control."

"The new code provides tabulated values for simple cases which allows designers to avoid detailed calculations if reinforcement sizes and spacings fall within prescribed limits. For more complex situations equations must be applied although many of these are "plug and play" once the parameters

are understood. The emphasis is on ensuring cracks remain narrow enough to protect durability and maintain appearance without requiring impractically heavy reinforcement.

"Deflection control is the other pillar of serviceability. Excessive deflections can damage finishes or misalign facades. The code sets limits of span/250 for total deflection and span/500 for incremental deflection after finishes are installed. The distinction is important: initial deflections occur under permanent loads and long term deflections accumulate gradually. For example, a glass curtain wall must accommodate only the incremental deflection after installation not the full deflection from the slab's self weight. Ignoring this distinction can lead to costly failures in mechanical and facade systems," she said.

She continued that South Africa's National Annex adds further guidance for lightly reinforced structures where Eurocode's default span to depth ratios proved unconservative. In this case the adjustment of ratios ensures that deflections remain within acceptable bounds even in slender members. These ratios are a good starting point but it is wise to always check the analysis. If deflections exceed the limits, adjust reinforcement or geometry.

By setting explicit crack width limits and refining deflection criteria with practical tools for calculation the code ensures that South African concrete professionals can design structures that stand safely and perform gracefully over their lifetimes.

ULTIMATE LIMIT STATES ACCORDING TO SANS 51992-1-1

The new SANS 51992-1-1 code for structural concrete changes the way the material is mixed and placed in order to ensure structures fail in a controlled, ductile manner rather than suddenly and catastrophically.

At the Concrete Society of Southern Africa (CSSA) seminar on the SANS 51992-1-1 code, Dr Kim Timm of Stellenbosch University guided delegates through the critical subject of ultimate limit states in the new code. She also highlighted new terminology and models which will constitute the new principles of reinforced concrete design.

She began by reminding the audience of the basic assumption that has long underpinned reinforced concrete design: plain sections remain plain. Even under bending the strain distribution across a section is assumed to remain linear allowing engineers to balance compression in the concrete against tension in the steel. This principle is carried over from SANS 10100 and remains the foundation of the new code. The difference lies in how stress–strain models are expressed and how neutral axis depth and design values are calculated.

The SANS 51992-1-1 is based on the Eurocode equivalent and introduces slightly different parameters for the stress block used in flexural design. Where the old South African code applied a factor of 0.67 to compressive strength the new code uses 0.85 and reflects the shift from cube to cylinder strengths and the incorporation of long term effects. Similarly the neutral axis depth is limited to 0.8 of the effective depth compared with 0.9 in the old code. These refinements may appear minor but they ensure consistency with international practice and more accurate modelling of material behaviour.

"Over reinforcing compression zones may produce brittle failures which the code explicitly seeks to avoid. The design philosophy is to ensure that steel yields before concrete crushes which gives warning and adds resilience. "We need structures to fail in a ductile manner so that if failure ever occurs it does so gradually not suddenly.

"There is continuity between the old and new systems which I illustrated by comparing the familiar K value method from SANS 10100 with its new counterpart. Engineers still calculate a dimensionless K value to determine whether compression reinforcement is required. The process is identical though the limiting values differ slightly. If the design falls below the threshold only tensile reinforcement is needed. If it exceeds it both tension and compression reinforcement must be provided so the equations may look different but the logic is unchanged.

"When it comes to shear design the changes are more obvious because the old code relied on empirical British data while SANS 51992-1-1 adopts a variable strut inclination model. This approach treats shear resistance as a truss mechanism within the beam with concrete carrying compression and stirrups carrying tension. Engineers can select strut angles between 21.8° and 45° and so balancing the contribution of concrete and steel. Shallow angles reduce steel requirements but demand more from the concrete whereas steeper angles increase steel demand but ease concrete stresses. The key is to ensure that steel yields before concrete fails in order to maintain ductility and safety," Timm said.

She noted that in this regard the SANS 51992-1-1 code's shear provisions are more sophisticated and show the improved understanding of concrete behaviour that has been gained over the years since the old code was adopted. It is also worth noting that minimum shear reinforcement is still required but the code clarifies that ribbed slabs such as waffle slabs do not need stirrups in their ribs unless specifically required. This distinction avoids unnecessary detailing while maintaining safety.

Examples provided also showed that while calculations may produce slightly different reinforcement quantities compared with the old code the orders of magnitude remain consistent. Engineers should not expect to see designs suddenly requiring double the steel and if they do it is a sign of misapplied equations rather than a flaw in the code.

CONCRETE CONNECT IS ENDORSED BY CASA

Introduction to CASA
Construction Alliance South Africa (CASA) is an historic initiative which has united the construction industry under one umbrella body made up of some 40 professional, contractor, supplier, manufacturer and other allied industry bodies – essentially the construction value chain. CASA seeks to address the need for broad-based ongoing collaboration, consultation and engagement involving relevant industry stakeholders and is characterised by professionalism, integrity, relevance, fairness and transparency

Construction Alliance South Africa (CASA) has endorsed Concrete Connect as a valuable communication and information platform for South Africa's construction industry recognising its role in sharing industry information and the work of organisations across the built environment.

As the construction industry's umbrella organisation CASA brings together 40 professional associations, contractor organisations, manufacturers, suppliers and other allied bodies creating a unified platform through which the sector can engage on issues affecting the industry. The endorsement reflects CASA's is commitment to improving communication and collaboration throughout the construction value chain.

CASA was formed to strengthen cooperation between organisations that represent every stage of the construction process. The alliance promotes ongoing consultation and engagement between industry stakeholders while encouraging professionalism and addressing the challenges and opportunities facing the sector.

The endorsement of Concrete Connect follows the publication's growing role as an independent source of industry news and technical information for professionals working across the construction landscape. The web-based magazine provides coverage of infrastructure, concrete technology, cement, construction materials, plant and equipment, engineering, manufacturing, logistics and related sectors while also reporting on the activities and achievements of industry associations.

By recognising Concrete Connect the alliance acknowledges the importance of reliable industry communication in helping organisations to share a relevant mouthpiece for the industry. The publication also provides a platform for role players to communicate with a broad industry audience of more than 6000 active readers. This contributes to the wider dissemination of information and the continued development of South Africa's construction sector.

In recognition of the endorsement Concrete Connect has committed to making its platforms available to all CASA members to disseminate news and information while extending favourable marketing opportunities to the each of the individual member organisations' own memberships.

"The need for unity in the sector cannot be over-emphasised. We are not only confronted with the enormous challenge of rebuilding the construction industry out of the rubble of COVID-19, but also to make it more inclusive, transformed, innovative and competitive. It also unifies and amplifies the voice of the industry and broadens the channel of communication with government, particularly at this time when construction is taking the lead in the economic recovery of South Africa. "

– John Matthews, Chairperson of CASA. 21/01/2021

SAINT-GOBAIN AFRICA LAUNCHES FREE GYPSUM RECYCLING SERVICE TO ADVANCE CIRCULAR CONSTRUCTION

The South African construction industry is at a turning point. Landfills are reaching capacity, regulations are tightening, and the cost of waste disposal continues to climb. The need for practical, scalable circular solutions has never been more urgent.

In response, Saint-Gobain Africa is taking decisive action. At its Gyproc factory in Brakpan, Gauteng, the company has launched a 'Gypsum Recycling Service' a first-of-its-kind offering that enables contractors and developers to divert gypsum waste from landfill at no recycling service fee. This bold move removes a critical cost barrier and sets a new benchmark for accessible circular construction in South Africa. The service allows gypsum offcuts and site waste to be collected and recycled, ensuring that valuable materials are recovered and reintroduced into the production cycle instead of being lost to landfill.

It's a clear example of Saint-Gobain Africa's Make it in Africa to Build Africa (MABA) commitment in action by delivering practical solutions built for local realities. Saint-Gobain Africa believes the transition towards circular construction will only take place through feasible solutions, collaboration and shared commitment.

"Gyproc's Gypsum Recycling Service makes circular construction practical," says Christo Smith, Managing Director for Walls and Ceilings at Saint-Gobain Africa. "With no recycling fee, we remove a major barrier to responsible waste management. We're making it easier for contractors and developers to do the right thing without compromising commercial realities." Unlike traditional disposal or composting solutions, the service is designed with real-world project conditions in mind, helping project teams reduce waste without adding cost or complexity.

"The industry doesn't need theory, it needs solutions that work on real sites," adds Estie Van Zyl, Sustainability Manager at Saint-Gobain Africa. "By removing the recycling fee, we are accelerating the shift to circularity and enabling meaningful change at scale. "Beyond product innovation, Saint-Gobain Africa is increasingly focused on how materials are produced, used, and reused, rethinking material flows from production through to recovery and reuse. The Gypsum Recycling Service represents a tangible step toward closing the loop in construction materials. However, the company emphasises that collaboration is critical. Achieving circularity in construction will require coordinated action across the value chain from architects and developers to contractors and industry bodies.

As South Africa's construction sector accelerates its transition toward more sustainable building practices, initiatives like this will play a pivotal role in reducing waste, improving resource efficiency, and building a more resilient, circular built environment.

EMBEDDING CARBON MANAGEMENT INTO CONSTRUCTION CONTRACTS

The integration of sustainability into construction procurement and contracting is increasingly imperative in South Africa, given its current carbon-intensive economy and evolving regulatory framework. The Carbon Management Guide (CMG) and Carbon Emissions Management Guidance (CEMG), launched by the Féderation Internationale des Ingeneurs-Conseils (FIDIC) in December 2025, introduce a structured methodology for embedding greenhouse gas (GHG) emissions management into its engineering and construction contracts.

This alert evaluates the relevance and applicability of the FIDIC carbon framework within South Africa's legal context, with specific reference to public procurement law, risk allocation principles and standard form construction contracts. It argues that while the FIDIC model aligns with South Africa's constitutional and statutory sustainability imperatives, its implementation raises complex legal and practical challenges requiring careful localisation. South Africa's construction sector operates within a legal environment shaped by constitutional imperatives that guarantee the right to an environment that is not harmful to health or well-being.

This environmental right, read with statutes such as the National Environmental Management Act 107 of 1998 (NEMA), creates a framework for sustainable development in infrastructure delivery.

Historically, construction and infrastructure contracts have prioritised time, cost and quality, with environmental considerations addressed primarily through regulatory compliance, almost as an afterthought, rather than contractual performance metrics. The FIDIC CMG seeks to challenge this paradigm by embedding carbon management directly into the contractual obligations, thereby transforming sustainability into a measurable and enforceable component.

Carbon as a resource

A defining feature of the FIDIC CMG is the treatment of GHG emissions as a quantifiable project resource, requiring the same level of management as financial budgets. The FIDIC CMG focuses on oversight of GHG emissions across the complete project lifecycle, including: integrating carbon considerations into project financing and governance; setting and managing the carbon emissions target at project level; integrating carbon performance across all phases of a project and in the multiple contracts required to deliver the project; managing the project-wide carbon balance sheet and carbon removal measures; and strategic decision-making on carbon trade-offs and optimisation.

Joe Whittle, director and Lakeen Kowlas, associate, in the Construction & Engineering Sector at Cliffe Dekker Hofmeyr

There are six core principles that the CMG places reliance on to manage its objectives with the aim of preventing its misuse. These principles are:

1. Evaluation criteria must include the carbon emissions budget proposed by tenderers.
2. All stakeholders must collaborate to improve the project's carbon balance sheet throughout the project's lifecycle.
3. It is crucial to promote measures that reduce GHG emissions rather than relying on removals or offsets.
4. Employers must establish a clear and unambiguous carbon emissions calculation methodology.
5. Employers are responsible for removing the project's GHG emissions and must not transfer that obligation to others.
6. All stakeholders should promote the continuous transformation of the industry's supply chain towards decarbonisation.

In the South African context, this aligns with the *"polluter pays"* principle, under NEMA, which provides that:

"The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment."

It also fits in with the carbon tax regime under the Carbon Tax Act 15 of 2019 – which aligns with the goals of NEMA – and the National Treasury's increasing emphasis on sustainable public procurement.

By requiring the establishment of a carbon balance sheet and lifecycle emissions tracking, the FIDIC CMG framework advocates for the introduction of a form of environmental cost accounting into its construction contracts, which may have significant implications for both pricing and risk allocation.

Procurement alignment

Public procurement in South Africa is governed by section 217 of the Constitution, which requires procurement systems to be based on the pillars of fairness, equality, transparency, competitiveness and cost-effectiveness.

The inclusion of carbon metrics, such as a carbon emissions budget, in tender evaluations raises the question of whether sustainability criteria are compatible with the requirement of cost-effectiveness. The FIDIC CMG explicitly supports the inclusion of a carbon budget as an evaluation criterion in the tender process, and against which actual carbon emissions can be compared, thereby expanding the concept of "value for money" beyond immediate financial cost.

Contractual standards

FIDIC contracts are widely used in South African infrastructure projects, particularly those involving international financing institutions. The CEMG introduces a standalone carbon clause and schedule of carbon emissions, preserving the integrity of existing contractual mechanisms. This is critical in South Africa, where amendments to standard forms often create interpretative disputes of contractual clauses and where the courts emphasise certainty and clarity in contractual obligations. While FIDIC is influential, domestic projects frequently utilise the New Engineering Contract (NEC) suite of contracts (particularly NEC4, which has its own climate change provisions in the form of the secondary Option X29 Climate Change clause), the Joint Building Contracts Committee Principal Building Agreement and the GCC. The FIDIC carbon framework could be used as a guide in drafting amendments to those contracts which do not contain climate change provisions, to provide for the goal of reducing GHG emissions.

Risk allocation

South African courts generally uphold contractual risk allocation unless contrary to public policy. The FIDIC framework maintains its hallmark principle of balanced risk allocation, even when introducing carbon obligations. Under the CEMG model, the employer retains lifecycle carbon responsibility, including removal obligations, and the contractor is liable for execution-related emissions within its control. This

allocation is consistent with South African law principles that risk should lie with the party best able to control it. The carbon emissions budget functions as a contractual performance threshold, analogous to target cost mechanisms and performance guarantees. The introduction of carbon emissions incentives (bonuses) and carbon emissions damages (penalties) creates a hybrid regime combining liquidated damages and gainshare mechanisms, which South African law generally recognises.

Claims and disputes

The FIDIC framework integrates carbon considerations into variations, claims and extensions of time. Where emissions exceed the carbon emissions budget due to employer-risk events, the budget is adjusted, preserving contractual fairness.

In South Africa, this raises novel dispute scenarios such as, but not limited to: disputes over GHG measurement methodologies; expert evidence on carbon quantification; and interpretation of causation in emissions overruns.

Implementation challenges

Public sector employers may lack technical expertise in carbon accounting and the resources to prepare detailed schedules of carbon emissions. The FIDIC form of contract, in its philosophy, emphasises the importance of high-quality tender documentation for successful implementation.

Contractors in South Africa may face challenges in that there may be limited access to emissions data, supply chain constraints and increased compliance costs. This may impact competitiveness and pricing, particularly for smaller contractors. South Africa's environmental and procurement regimes are not yet fully harmonised with carbon-based contracting, creating the possibility of uncertainty in compliance standards and potential duplication between regulatory and contractual obligations.

Legal implications

The adoption of the FIDIC carbon framework in South Africa could accelerate the integration of climate policy into private law instruments, influence the evolution of standard form construction contracts and support South Africa's commitments under the Paris Agreement. Fundamentally, it signals a shift towards performance-based sustainability obligations, where environmental outcomes are contractually enforceable rather than merely regulatory.

The FIDIC CMG represents a significant innovation in construction contracting, with strong potential applicability in South Africa. Its emphasis on measurable carbon performance, balanced risk allocation and integration with existing contractual mechanisms aligns with both legal doctrine and policy objectives.

However, its successful adoption will depend on careful alignment with South African procurement law, development of technical and institutional capacity and thoughtful adaptation to local contracting practices. If effectively implemented, the FIDIC framework could play a pivotal role in transitioning South Africa's construction industry towards a low-carbon, contractually accountable future

CONSTRUCTION MANAGEMENT COURSE STRENGTHENS CONTRACTORS

cidb Board Chairperson Khulile Nzo

The Construction Industry Development Board (cidb) in partnership with the University of Johannesburg (UJ) has officially launched its Certificate in Construction Management (CCM) learning initiative.

This gives contractors access to a practical industry-focused course designed to strengthen business performance and prepare them for larger infrastructure opportunities. The Certificate in Construction Management (CCM) is a flagship learning initiative offered under the cidb's B.U.I.L.D Programme. Developed in collaboration with the University of Johannesburg the course combines academic excellence with practical industry experience to equip contractors with the knowledge and skills needed to build sustainable construction businesses.

The country depends on capable contractors to deliver infrastructure that supports its ports, logistics network and growing economy. The CCM course responds to this need by strengthening contractors' skills in project management, construction management, financial management and business leadership.

Speaking at the launch in KZN, cidb Board Chairperson Khulile Nzo said the learning initiative demonstrates the impact of collaboration between government, academia and industry.

"The Certificate in Construction Management marks an important milestone for South Africa's construction industry. This is a great example of what can be achieved when government, universities and the private sector work together to build the skills and capacity of our contractors."

KwaZulu-Natal MEC for Public Works and Infrastructure, Marthinus Meyer, encouraged contractors to use the course as a stepping stone for growth.

"A certificate is not a finish line. It is simply your licence to start making a difference. We want to develop all our small and up-and-coming contractors to become the big players of tomorrow."

The course combines structured academic learning with practical workplace application, covering project management, business management, financial management, contract administration, quality, compliance, and health and safety. Participants will gain practical skills they can apply immediately to improve business performance, strengthen project delivery and position themselves to compete for larger and more complex construction opportunities.

The launch brought together government leaders, industry stakeholders, contractors and academic partners, reflecting a shared commitment to developing a more capable, competitive and sustainable construction industry.

As South Africa accelerates infrastructure delivery, the cidb believes investing in contractor development through quality learning initiatives such as the Certificate in Construction Management will help improve project delivery, grow contractor capability and support long-term economic growth.

KwaZulu-Natal MEC for Public Works & Infrastructure, Marthinus Meyer

FULTON AWARDS 2027: CALL FOR NOMINATIONS

The Concrete Society of Southern Africa (CSSA) has officially launched the 2027 Fulton Awards, calling on the construction industry to submit concrete projects that have pushed the boundaries of technical excellence, innovation and craftsmanship over the past two years.

For more than four decades, the biennial Fulton Awards have celebrated projects that showcase the versatility and potential of concrete, while recognising the collaborative efforts of the professional teams responsible for bringing these exceptional projects to life.

Named in honour of the late Dr Sandy Fulton, one of South Africa's foremost concrete pioneers and a founding force behind the Concrete Society, the awards recognise his outstanding contribution to advancing concrete technology and construction throughout Southern Africa.

What began with just two award categories has evolved into one of the built environment's most prestigious industry accolades. Over the years, the judging criteria have continually evolved to reflect advances in engineering, sustainability, durability, architectural excellence and innovation.

Previous winners have included landmark commercial developments, iconic bridges, major dams, sophisticated industrial facilities, innovative water infrastructure and architectural masterpieces. The 2027 Fulton Awards promise to continue this proud tradition.

The 2027 programme invites nominations for projects completed, or substantially completed, between January 2025 and December 2026 anywhere within the SADC region.

Projects will compete in the following five categories

Buildings up to R50 million

Buildings over R50 million

Infrastructure up to R100 million

Infrastructure over R100 million

Innovation and Invention in Concrete

The Innovation and Invention in Concrete category recognises advances in research, new technologies, construction techniques, applications, design methodologies and innovative concepts that have successfully advanced the use of concrete in practice.

Should sufficient rehabilitation projects be entered, the judging panel may introduce an additional category recognising excellence in concrete rehabilitation. The judges also reserve the right to introduce further categories where warranted by the quality and diversity of the submissions received.

While engineering excellence remains at the heart of the Fulton Awards, the judges continue to emphasise that the most successful entries are those in which concrete is celebrated rather than concealed.

Projects that demonstrate outstanding structural design, innovative construction methods, exceptional surface finishes, architectural expression and creative detailing are likely to receive greater recognition than projects where concrete serves purely as a hidden structural element.

Independent Judging Process

As with previous Fulton Awards, all entries will undergo a rigorous multi-stage adjudication process.

Initial nominations will be evaluated by the independent adjudication panel of highly respected professionals representing the concrete and built environment sectors, including specialists in concrete materials, architectural concrete and structural engineering.

Based on the information submitted during the nomination stage, the judges will determine which projects will be invited to submit a full Entry Package for the final adjudication process. Shortlisted projects will then undergo comprehensive technical evaluation, including site inspections where applicable, before the winners are selected.

Important Dates

The CSSA has announced the following programme for the 2027 Fulton Awards:

Nominations close:
Monday, 31 August 2026
Formal submissions close:
Monday, 30 November 2026
Project adjudication:
February – March 2027
Fulton Awards Gala Evening:
Saturday, 5 June 2027

The Society emphasises that the deadline for the formal Entry Pack submission is final, and late entries will unfortunately not be accepted.


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CONSTRUCTION SME'S ARE WINNING CONTRACTS THEY CANNOT FUND

Clinton Thomas - Head of Product at Lula

> "The cash flow problem facing construction SMEs is not a symptom of poor management; it is baked into the project cycle itself."

South Africa's construction sector generates 130 000 jobs a quarter and is heading into a R1 trillion infrastructure cycle but the businesses delivering the work still struggle to access the construction finance they need to mobilise projects from day one.

Speaking at the 14th edition of Big 5 Construct South Africa, Clinton Thomas, head of product at Lula, brought this reality to light. "The cash flow problem facing construction SMEs is not a symptom of poor management; it is baked into the project cycle itself. The business wins the tender, orders the materials and starts the work, but payment only arrives months later. This is the reality of construction financing in South Africa, where contractors often need access to working capital long before they can invoice or receive payment. Timing is everything. Instead of bottlenecks, SMEs need finance that gets them on site with the right materials at the right time."

One of the construction sector's most persistent problems in development and delivery comes down to funding. For many SMEs, access to tender finance in the weeks between award and mobilisation is the difference between delivering on time and losing the contract entirely. Small contractors are falling behind because the funding they need arrives after the costs they need to cover, impacting service delivery, timelines and liquidity. With the South African construction market expected to reach R160.65 billion in 2026 at a 4.8% annual growth rate, and the public sector infrastructure spend forecast anticipated to reach R1.06 trillion over the 2026-2029 medium-term expenditure framework, SMEs need better cash flow support.

The data Lula brought to the Big 5 Construct South Africa stage also challenged a widespread assumption about the sector. Construction SMEs are not in distress – they are in demand, but their growth depends on funding the gap between a project being awarded and the income it eventually generates. Construction accounts for 15% of Lula's total book exposure and the company has issued over 16,000 advances to more than 4,000 companies at an average of R370,000. Around 37% of the advances within the construction sector exceed R250,000 and nearly 10% are more than R1 million.

At the end of Q2 2025, nearly 96,000 government invoices older than 30 days - a combined value of R12.4 billion - remained unpaid, while private sector payment cycles can stretch upwards of 150 days. This constricted flow of cash has been disrupting project delivery for years and, with construction firms forming a significant slice of South Africa's SME base, it is easy to see how liquidity has become a systemic bottleneck. Currently, more than two-thirds of SMEs expect to require additional financing within six months to fund working capital, and 40% are relying primarily on self-funding.

There are multiple cost categories sitting inside this gap: upfront materials, weekly wages and subcontractor fees, equipment, fuel and transport, supplier deposits, retention periods, and the compounding pressure of running multiple live projects simultaneously. For many businesses, access to a building material loan or other forms of short-term construction finance can determine whether a project starts on time or falls behind schedule with consequences that extend into other contracts, supplier relationships, reputation, and the ability to bid competitively for the next opportunity.

When capital is structured around the friction points experienced by the SME, then it ensures that they have the liquidity they need to put materials on site before invoicing. This ensures that companies can mobilise immediately and deliver on time despite payment delays. Modern solutions are more sensitive to the needs and pain points of a sector set to boom by providing frictionless access to the right resources.

"What construction SMEs need is working capital that moves at the speed of a project, not a bank's credit committee. They should be supported by a different approach to underwriting that bypasses conventional credit assessments built around static financial snapshots, and instead focuses on real-time transaction data," Thomas explained. "Lula's model makes funding decisions that reflect how a SME actually trades across the frequency, consistency and pattern of its inflows."

South Africa's infrastructure ambitions will only be sustainably realised if SME contractors doing the work can fund their mobilisation from Day One. The timing constraint does not have to be a bottleneck, nor does it have to inhibit growth and employment, not with funding that recognises where the SME is today.

"Growth fails when companies cannot access capital at the moment it is needed," Thomas concluded.

TACKLING MUNICIPAL PLANNING DELAYS TO IMPROVE SERVICE DELIVERY

The South African Council for the Architectural Profession (SACAP) has intensified its efforts to address persistent challenges experienced by registered architectural professionals in the processing of planning applications at municipalities across South Africa.

Following continuous complaints received from registered architectural professionals regarding delays, inconsistent processes, limited communication and extended turnaround times for planning submissions, SACAP engaged with the Department of Cooperative Governance and Traditional Affairs (CoGTA) on 20 July 2026 to identify practical interventions and strengthen collaboration towards improving municipal planning processes.

CoGTA acknowledged SACAP's concerns regarding delays and inefficiencies in planning applications and confirmed that a business optimisation process is underway to strengthen municipal processes, improve efficiency, streamline procedures and reduce turnaround times for planning approvals. Municipalities will be required to develop action plans under CoGTA's oversight to monitor and track improvements. SACAP President, Charles Nduku, welcomed the engagement and reaffirmed SACAP's commitment to working with CoGTA to promote efficient, transparent and accountable municipal planning processes.

As part of the engagement, SACAP was advised that architectural professionals experiencing unresolved delays, poor communication or challenges with planning submissions may escalate their complaints to CoGTA for investigation and resolution. Vincent Rabothata, chief director: Development Planning at DCoG, emphasised the importance of efficient and consistent municipal planning systems and welcomed continued collaboration with SACAP to strengthen service delivery.

"SACAP will continue to engage with CoGTA and relevant stakeholders to monitor progress and advocate for greater efficiency, transparency and accountability in municipal planning processes. Registered professionals are encouraged to formally report unresolved challenges through the appropriate complaints channel, while SACAP will continue to provide updates on the progress of its collaboration with CoGTA", said Toto Fiduli, SACAP Registrar

ENVIRO-WALL CHOSEN FOR NEW DISTRIBUTION CENTRE

When chemical manufacturer and supplier Nutrochem commenced development of their new distribution centre and bulk handling facility in Bethal, Mpumalanga, they selected Technicrete's Enviro-Wall retaining wall system.

Enviro-Wall is a versatile reversible block with one side smooth and the other fluted allowing for a variety of pleasing visual effects. It can be installed with gaps between blocks for vegetation growth or as a solid engineering structure.

Pieter du Plessis, chief executive officer of Nutrochem said "We have had a long-standing relationship with Technicrete for over 25 years, in fact, we had Enviro-Wall installed in our existing plant and never encountered problems with the product. Therefore, it made sense to engage with Technicrete again for our new facility."

"The Enviro-Wall system in our opinion is of a very good quality and easy to work with. At our new site it is used mainly as a retaining wall along our site boundaries where we have level differences. A big plus was the technical support provided by Technicrete on our initial project gave our team the experience needed to easily install the bricks on our expansion project.".

Constructed from dry stacked interlocking, precast blocks, the simplicity of the Enviro-Wall design enables blocks to be easily and quickly placed to form an effective retaining wall. Opening or closing the spacing between the blocks means that the Enviro-Wall structure configuration can be altered so that the open arrangement cavities between adjacent blocks can be filled with soil, enabling plant growth. It can also be installed as a solid, closed-faced structure.

Subject to the engineer's design of the overall wall structure incorporating the blocks, a wide range of retaining wall/embankment heights can be accommodated by the system. Lower walls would typically be designed as gravity walls where the blocks themselves resist the soil forces whilst higher walls are generally reinforced with structural geogrid layers that are locked in place and tensioned between the Enviro-Wall blocks creating a reinforced soil block behind the Enviro-Wall blocks constituting a Reinforced Wall Design.

The angle of inclination of the wall may be set by using the (optionally supplied) base block at 70° but Technicrete's engineering team can assist in the event that other angles might be preferred or required. The wall accommodates both concave or convex alignments down to a relatively small (2m) radius of curvature. Enviro-Wall structures accommodate moderate ground settlement while foundation requirements will vary according to wall height and underlying soil conditions. It is suitable for high and low walls, (near) vertical (<88°) angles, riverbank protection and countless other commercial, industrial and domestic applications.

"We were delighted to work with Nutrochem again on their new Bethal project. Technicrete supplied in excess of 15,000 Enviro-Wall blocks for their retaining wall requirements. Over the years we have worked together supplying Technicrete product for their various developments. The longevity of our relationship with Nutrochem speaks volumes about how Technicrete believes in building personal relationships with customers in addition to ensuring their satisfaction with our technical support, product quality and delivery" said Syfran Chuene, sales consultant at Technicrete Mpumalanga.

"Technicrete has always delivered a high-quality product and delivered technical support where needed. I cannot fault the service we have received over the years from Technicrete." concluded du Plessis.

It should be noted that the block itself is only one component of the complete wall structure that includes the blocks, retained soil, drainage media, foundation, geogrids (as required), etc. As such, whilst engineering input should be sought for all retaining walls, any retaining walls over about 1.2 to 1.5m in height above ground level must be designed and certified by a suitably experienced and qualified engineer.

MUNICIPALITY HANDS OVER OCCUPATION FOR RESORT

A milestone in the delivery of one of South Africa's most anticipated tourism developments was reached recently with the ceremonial handover of the occupation certificate for the Club Med South Africa Beach and Safari resort in Tinley Manor.

Hosted on site and attended by municipal leadership, officials and project stakeholders, the event signals the formal completion of the development phase of the 54,000 square metre resort, which comprises of 64 buildings and represents a landmark investment on KwaZulu-Natal's North Coast.

The occupation certificate follows an extensive regulatory and compliance process involving the submission, review and approval of a substantial volume of documentation over time. In total, 12 submission packages were processed, alongside approximately 2,000 completion certificates and certificates of compliance, including 570 electrical COCs. This was supported by major bulk infrastructure works, including 3.3 kilometres of bulk water pipeline, 8.4 kilometres of medium-voltage electrical cabling to the site, as well as complex engineering interventions such as a 9-metre pipe jack beneath the N2 and a 40-metre directional drill under the P467.

Murray Collins, representing Collins Residential, described the milestone as both long-awaited and deeply significant for the region. "It is a special day to receive our occupation certificate and we thank KwaDukuza municipality and all its members for the work they have put in to make this project so successful. We are incredibly excited about what this means not only for KwaZulu-Natal and the North Coast, but for South Africa as a whole; from tourism growth and job creation to truly putting this destination on the global map. It has been a long time coming, and we are proud to see the world represented here on the North Coast," Collins said.

Chris du Toit, project lead for Club Med South Africa, emphasised the strength of the partnership that enabled the project's delivery. "It is a fantastic day for us to welcome KwaDukuza Municipality to site for the official handover of the occupation certificate. This has been a truly collaborative journey. Right from the early days of design, the municipality consistently dedicated teams to collaborate with us, engaging on a weekly and even daily basis to ensure approvals and signoffs were achieved. Today is not only about completing the resort, but also about recognising the broader impact this development will have through job creation and long-term economic benefit for surrounding communities," du Toit explained.

To close off the official proceedings, KwaDukuza Municipality Mayor, Councillor Siduduzo Gumede, highlighted the broader significance of the development for the region saying, "We are here today at the Club Med Resort to hand over the occupation certificate as we prepare to declare this a fully developed resort. This is a significant investment for our area, being the first of its kind and we are grateful to the investors. Through this development, jobs have been created and we are confident that tourism in this region will grow meaningfully. This is a project of a high, international standard and we believe it will help improve the lives of our people in KwaDukuza," Gumede added.

With the occupation certificate now issued, Club Med's operational teams are already established on site and have commenced preparations, including staff onboarding and training, ahead of a phased soft launch. The resort is scheduled to officially open on 4 July 2026.

The handover marks a pivotal moment for this Club Med development, reinforcing the North Coast's emergence as a hub for international-standard tourism investment and demonstrating the impact of effective public-private collaboration in delivering large-scale infrastructure projects.

CONSTRUCTION GROUP OPENS NEW HEADQUARTERS

The new headquarters can accommodate at least 50% additional growth.

M&D Construction Group has officially opened its new headquarters at 10 Kikuyu Road in Sunninghill, Sandton, marking a significant milestone in the company's 43-year history and positioning the business for its next phase of growth.

The new facility has been designed to accommodate future expansion, with capacity for approximately 50% additional growth while providing collaborative workspaces for employees and meeting facilities for clients and business partners.

The opening also marked the formal integration of M&D and Namibia's Afri-Track Group (ATG), following the merger of M&D Construction Namibia and Afri-Track Construction. The combined business will strengthen the group's capabilities in railway and infrastructure development across southern Africa.

Addressing guests at the opening ceremony, M&D group executive chairman Dr Zoliswa Tshetshe said the new headquarters symbolises renewal as the company continues to modernise its operations and prepare for future opportunities. Reflecting on the company's four decades in business, she acknowledged the contribution of employees, leadership teams and business partners in building the organisation, adding that long-term success requires businesses to continually adapt to changing market conditions. The headquarters had been designed to foster collaboration, innovation and stronger relationships with clients, partners and stakeholders.

M&D group chief financial officer Gavin McAlpine described the development as a long-term strategic investment rather than simply a move to larger premises. "We invested ahead of where we are today because we believe strongly in the future of this company," he said, adding that bringing employees together under one roof was already improving collaboration across the business.

Chief executive officer Rukesh Raghubir said the company had pursued the property for more than a year before acquiring and refurbishing it. He noted that after operating from its previous headquarters for more than three decades, the new facility had been designed to support the company's long-term plans.

Despite challenging market conditions over the past year, Raghubir said M&D had continued investing in its business while recent project awards had strengthened confidence in the company's future pipeline. The investment philosophy extends beyond office infrastructure. M&D Plant managing director Mark Drury said the company continued investing in construction plant during the COVID-19 pandemic, positioning the division to meet future demand as market conditions improved.

Executives from across the group said the new headquarters reflects the company's continued investment in infrastructure delivery and engineering capability.

Trotech executive chairman Ralph Wilson said the facility would enhance collaboration and communication across the business, while Managing Director: Infrastructure John Le Riche highlighted opportunities arising from increasing investment in water infrastructure and the group's diversified service offering across infrastructure, pipelines, bulk storage tanks, rail and other specialist disciplines.

Managing director for pipelines, Martin van Aswegen said the new headquarters reflects the company's ongoing commitment to delivering major infrastructure projects while investing in its people and maintaining long-term client relationships.

The opening also represents a new chapter for the group's rail business. ATG chief executive officer Johan Laubscher said combining M&D's construction expertise with ATG's specialist railway capability creates a stronger platform for infrastructure development throughout the region.

Looking back on the company's growth, Rukesh Raghubir said M&D has expanded through a strategy of diversification and investment despite a series of industry challenges, including the global financial crisis, the prolonged downturn in South Africa's construction sector following the 2010 FIFA World Cup and the closure of its building division in 2019.

Rukesh Raghubir, M&D Group Chief Executive officer, said M&D was Growing a Great Company with Great People and Great Partnerships.

The new headquarters create an environment where employees can collaborate, develop and thrive while strengthening relationships with clients, partners and stakeholders.

COULD YOUR CONCRETE BE COSTING YOU MORE THAN YOU THINK

Let's start with a question that might sound a little strange: could your concrete be too good?

Before anyone dismisses the idea, consider this. In the ready-mix industry, achieving strengths well above specification is often seen as something to celebrate. A 30 MPa mix that consistently reaches 40 MPa certainly looks impressive on a test report. But those results may also point to an opportunity to improve efficiency and profitability.

While high-strength results provide confidence in quality, they can also indicate that more cement is being used than necessary. Those additional kilograms may seem insignificant in a single cubic metre, but over months of production they can have a substantial impact on costs.

When a client specifies 30 MPa, the expectation is that the concrete will consistently meet the required strength, comply with durability requirements and perform reliably throughout its service life. Producing concrete that significantly exceeds those requirements often means additional cement is being added without delivering any additional value to the customer.

The financial impact can be considerable. Consider a mix design containing an extra 15 kg of cement per cubic metre. A plant producing 10,000 m³ of concrete each month would consume an additional 150 tonnes of cement every month. Over a year, that represents a significant and largely unnecessary cost.

There are other implications too. Higher cement contents increase the environmental footprint of the concrete and may contribute to greater heat generation and drying shrinkage. What begins as a comfortable safety margin can gradually become an expensive production habit.

Naturally, no producer should design mixes that leave no room for normal production variation. An appropriate margin above the specified strength remains essential for quality assurance. The challenge is determining where that margin becomes excessive.

The ideal balance is achieved by focusing on:

- Compliance with specification requirements
- Long-term durability
- Consistent production quality
- Efficient material usage
- Sustainable profitability

Achieving that balance depends on understanding production data, controlling variability and reviewing mix designs regularly. Simply increasing cement content is rarely the most economical solution.

Let the Data Tell the Story

Consistently high strength results provide valuable information. Strength trends, standard deviation, coefficient of variation and overall production data can reveal whether a mix has been properly optimised or has gradually become over-designed.

If 28-day strengths are regularly well above target, it may be worth asking:

- Can the cement content be reduced?
- Can supplementary cementitious materials (SCMs) improve efficiency?
- Is the mix design more conservative than necessary?
- Can tighter batching controls reduce variability?

Each unnecessary kilogram of cement carries a cost, and routine cube results may already be highlighting opportunities for improvement.

Optimisation Delivers Real Value

Optimising a mix design is an ongoing process of refining materials and production controls. Relatively small adjustments to cement content, aggregate grading, SCM usage or water control can deliver meaningful savings while maintaining compliance with strength and durability requirements.

For many producers, a closer examination of production data can result in:

- Lower material costs
- Improved sustainability
- Better process control
- Healthier profit margins

Small refinements across thousands of cubic metres can make a significant difference to the bottom line.

Final Thoughts

Concrete that comfortably meets specification reflects good quality control. However, concrete that consistently exceeds specification by a wide margin may indicate that materials are being used less efficiently than they could be.

The objective is to produce concrete that is fit for purpose, durable, consistent and cost-effective. In the ready-mix industry, every kilogram of cement counts.

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WHY SERVICE SUPPORT IS A REAL DIFFERENTIATOR IN A COST-CONSTRAINED MARKET

Pieter Smuts, Managing Director of Husqvarna South Africa

It usually happens at the worst possible time. The team is ready. The day's work has been planned. Customers are waiting. Deadlines are tight. Then a machine that worked perfectly the day before refuses to start.

In that moment, downtime becomes very real. And very costly. It's not only the repair bill that matters. It's the hours lost, the next job delayed and the customer who still expects delivery. For many South African businesses already under pressure, it's another expense they didn't plan for.

It is the reason service support is now emerging as a critical differentiator in equipment buying decisions. Downtime has never been more expensive and when margins are tight, lost operating hours can actually outweigh a higher purchasing price for an item.

Fuel prices, labour costs and general operating expenses also continue to place pressure on margins, and many commercial users such as landscapers, grounds maintenance teams and foresters are opting to keep machines for longer before replacing them. While this may help to manage costs, Smuts notes that it also makes maintenance, parts availability and after-sales support more important.

When customers keep equipment for longer, servicing becomes critical. A well-maintained machine can continue delivering value, but small issues that are ignored can quickly become bigger, more expensive problems.

This is influencing how customers define value. A lower upfront price may look attractive, but if a machine cannot be serviced quickly, if parts are difficult to source, or if support is limited, the true cost of ownership can be far higher over time.

Smuts highlights the following practical questions customers should be asking before buying outdoor power equipment:

1. Can the machine be serviced locally?
2. Are genuine parts readily available?
3. Is there a dealer nearby who understands the product?
4. What support is available if something goes wrong?
5. How quickly can the machine be back in operation?

These can no longer be afterthoughts. For professional users, downtime means delayed work, idle teams, missed deadlines and unhappy customers. That is why service support has become part of risk management, not just a support function. A strong dealer network helps reduce that risk. Dealers are often the first people customers turn to when they need advice, servicing or repairs. Their ability to respond quickly can directly affect how long a machine is out of use.

For Husqvarna South Africa, what happens after the purchase is just as important as the product itself, Smuts emphasises. The sale of a machine is only the beginning of the customer relationship, with ongoing service and support playing a critical role in long-term performance.

Customers need to know that support is available when they need it. That includes trained technicians, knowledgeable dealers, access to the correct parts and advice that helps them get the best performance from their equipment.

In a cost pressured market, cheaper alternatives to genuine parts can be tempting. However, Smuts warns that shortcuts often create higher costs later. Original components are designed to work with the machine as intended," he continues. They help protect performance, reliability and safety.

The same thinking applies to extended warranties. As customers keep equipment for longer, warranty support can offer peace of mind and help protect against unexpected costs. It also gives customers confidence that their asset is protected, and in today's challenging market conditions, that kind of assurance is increasingly valuable.

Customers are becoming more value-focused in terms of total cost of ownership. While price will always matter, it's no longer the only measure of a good investment.

The brands that will stand out are the ones that keep users operational. It's not just about selling a machine. It's about supporting it throughout its working life and helping professionals protect their productivity.

As operating costs continue to shape business decisions, service support is becoming central to business resilience. Customers remember who was there when they needed help. That is why service support has become such a powerful differentiator. It gives people confidence, protects productivity and helps them get the best possible value from their equipment.

BUILT FOR THE TOUGHEST CONSTRUCTION CHALLENGES

In the construction, roadbuilding, quarrying and mining sectors, productivity depends on vehicles that can handle demanding conditions while delivering maximum payloads and operational efficiency. Mercedes-Benz Trucks offers a range of tipper solutions designed to meet the varying requirements of construction and material-handling operations, from highly manoeuvrable site vehicles to high-capacity medium-haul combinations.

Mercedes-Benz Arocs 3336K/36: The Construction Industry Benchmark

Widely regarded as the benchmark in the three-axle tipper segment, the Mercedes-Benz Arocs 3336K/36 has earned a reputation for reliability, stability and exceptional productivity in challenging off-road environments.

Designed for road building, heavy construction, material handling in mining and quarrying applications, the Mercedes-Benz Arocs 3336K/36 can transport up to 18 000 kg, or approximately 10 to 11 cubic metres of material in off-road conditions.

Its combination of a favourable power-to-weight ratio, excellent stability and superior manoeuvrability allows operators to maintain high productivity levels, even on steep ramps and in fast-paced production environments. Whether moving rock, aggregate, soil or construction materials, the Mercedes-Benz Arocs 3336K/36 delivers the versatility and performance required on demanding job sites.

Mercedes-Benz Arocs 3236B/51: Maximising Payload on the Road

For operations focused on bulk material transport, the Mercedes-Benz Arocs 3236B/51 offers an efficient solution for hauling sand, aggregate and hot asphalt.

Purpose-built for builders' merchants and road-building applications, this lightweight tipper can legally carry up to 20 000 kg or approximately 11 cubic metres capacity when fitted with a lightweight aluminium body.

The Mercedes-Benz Arocs 3236B/51 is engineered primarily for on-road operations, where low tare mass and high payload capacity translate into improved efficiency and profitability. While the vehicle can venture off-road for loading and unloading activities, it is not intended for heavy construction or mining applications. Instead, its strength lies in transporting large volumes of material quickly, economically and within legal road transport requirements.


AROCS

Mercedes-Benz Arocs 4152K/51: High-Capacity Productivity for Long Hauls

Where maximum productivity and larger payload requirements are the priority, the Mercedes-Benz Arocs 4152K/51 raises the bar.

Designed for road building, heavy construction, mining and quarrying applications, this robust tipper chassis can carry approximately 16 cubic metres, in off-road environments. When operated with a trailer, payload capacity can be up to 36 000 kg.

Offering higher productivity than the Mercedes-Benz Arocs 3336K in comparable applications, the Mercedes-Benz Arocs 4152K/51 is ideally suited to longer-haul operations where moving greater volumes over greater distances delivers operational advantages. While its larger dimensions mean it is less manoeuvrable than a three-axle tipper, its Gross Combination Mass (GCM) rating makes it particularly effective in truck-and-pup trailer configurations.

This capability makes the Mercedes-Benz Arocs 4152K/51 an excellent choice for transporting road-building materials, aggregates and minerals over extended distances, especially where side-tipper operations are impractical.

Mercedes-Benz Arocs 3336/48: Versatility Across Multiple Industries

The Mercedes-Benz Arocs 3336/48 is a highly versatile and dependable 6x4 rigid vehicle designed to serve both distribution and construction applications. Built to perform reliably in on-road environments while retaining the capability to operate in light off-road conditions, the Mercedes-Benz Arocs 3336/48 offers operators exceptional flexibility across a wide range of industries.

With a legal payload of up to 16 000 kg, including the weight of the body and associated equipment, the vehicle is ideally suited to applications such as water tankers, concrete pumps, compactor and waste management operations, skip loaders, hook lifts, dropside bodies with or without cranes, livestock transportation and beverage distribution.

A key advantage of the Mercedes-Benz Arocs 3336/48 is its robust chassis design and modular layout, which simplifies body mounting and allows for easy adaptation to specialised applications. The vehicle is also supplied with standard preparation for a split-shaft PTO, enabling seamless integration of auxiliary equipment such as concrete pumps, drilling machinery and vacuum tanker systems. Combining durability, flexibility and ease of body installation, the Mercedes-Benz Arocs 3336/48 is a dependable solution for operators seeking a multi-purpose vehicle capable of delivering productivity across a variety of demanding transport and construction environments.

The Right Vehicle for Every Construction Application

From agile construction site operations to high-volume aggregate transport and long-distance material hauling, Mercedes-Benz Trucks provides purpose-built solutions for every stage of the construction value chain.

The Mercedes-Benz Arocs 3336K/36 delivers benchmark performance in challenging off-road environments, the Mercedes-Benz Arocs 3236B/51 maximises payload efficiency for road-based aggregate transport and the Mercedes-Benz 4152K/51 offers unmatched productivity for high-capacity hauling operations. Together, these vehicles demonstrate Mercedes-Benz Trucks' commitment to providing robust, reliable and efficient transport solutions that keep construction projects moving forward.

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NEW COLLEGE UNDERWAY IN WESTERN CAPE

False Bay TVET College has announced significant progress in the construction of its new Mitchells Plain Campus, a major infrastructure development set to expand access to vocational and occupational education in one of the city's fastest-growing communities.

Following the official site handover in August 2024, construction milestones have been achieved on schedule. Work has progressed from site establishment and earthworks to foundation excavations, which began on 23 October 2024. Structural development is now well underway, with roofing and landscaping identified as the next phases of the project. The scale of the development is already visible to commuters along Spine Road in Bayview.

The new campus is expected to open in the final quarter of 2026, in time to support student applications for the 2027 academic year.

The Mitchells Plain Campus represents a long-term investment in both education and local economic development. Since the land transfer in February 2021, the College has prioritised community inclusion, achieving over 30% participation from local suppliers during construction.

Once complete, the campus will accommodate up to 3,000 students and offer programmes across five key faculties: Engineering, Business, Safety in Society, Design & IT and Hair & Cosmetology. The institution is also working toward accreditation through the Quality Council for Trades and Occupations to introduce new qualifications in Cosmetology and Creative Design.

Students will benefit from modern classrooms, specialised workshops and simulation environments designed to deliver practical, job-ready training. The programme offering will span traditional artisan trades such as bricklaying, carpentry and plumbing, alongside future-focused disciplines including artificial intelligence software development, cloud administration and cybersecurity.

Acting Principal Charlene Matthews emphasised the broader impact of the project, "The Mitchells Plain Campus is more than just a new facility; it is a transformative investment in the future of the community. It expands access to quality education while ensuring our programmes remain aligned with industry needs. Our goal is to equip students with practical, in-demand skills so they can actively contribute to the economy."

Campus Manager Souchan Gasant-Jackson added, "Since 2005, we have worked to bring education closer to where our students live. This new campus builds on that vision. It reflects the unique spirit of Mitchells Plain — one of unity and resilience — and will continue to serve as a beacon of opportunity and hope."

Designed with community integration in mind, the campus will include a multipurpose hall and auditorium available for local events, along with open, student-centred spaces. Infrastructure resilience has also been prioritised, ensuring continued operations during water or electricity disruptions.

Until the new campus is completed and fully accredited, the College will continue to operate from its temporary site at Cedar High School in Rocklands.

Mitchells Plain Campus - Fast Facts

- Size: 12,156.87 m²
- Capacity: 3,000 students
- Facilities: Academic buildings, administration block, multipurpose hall, sports field, open learning centre, cafeteria
- Entrances: Seafarer Road and Birkenhead Road

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