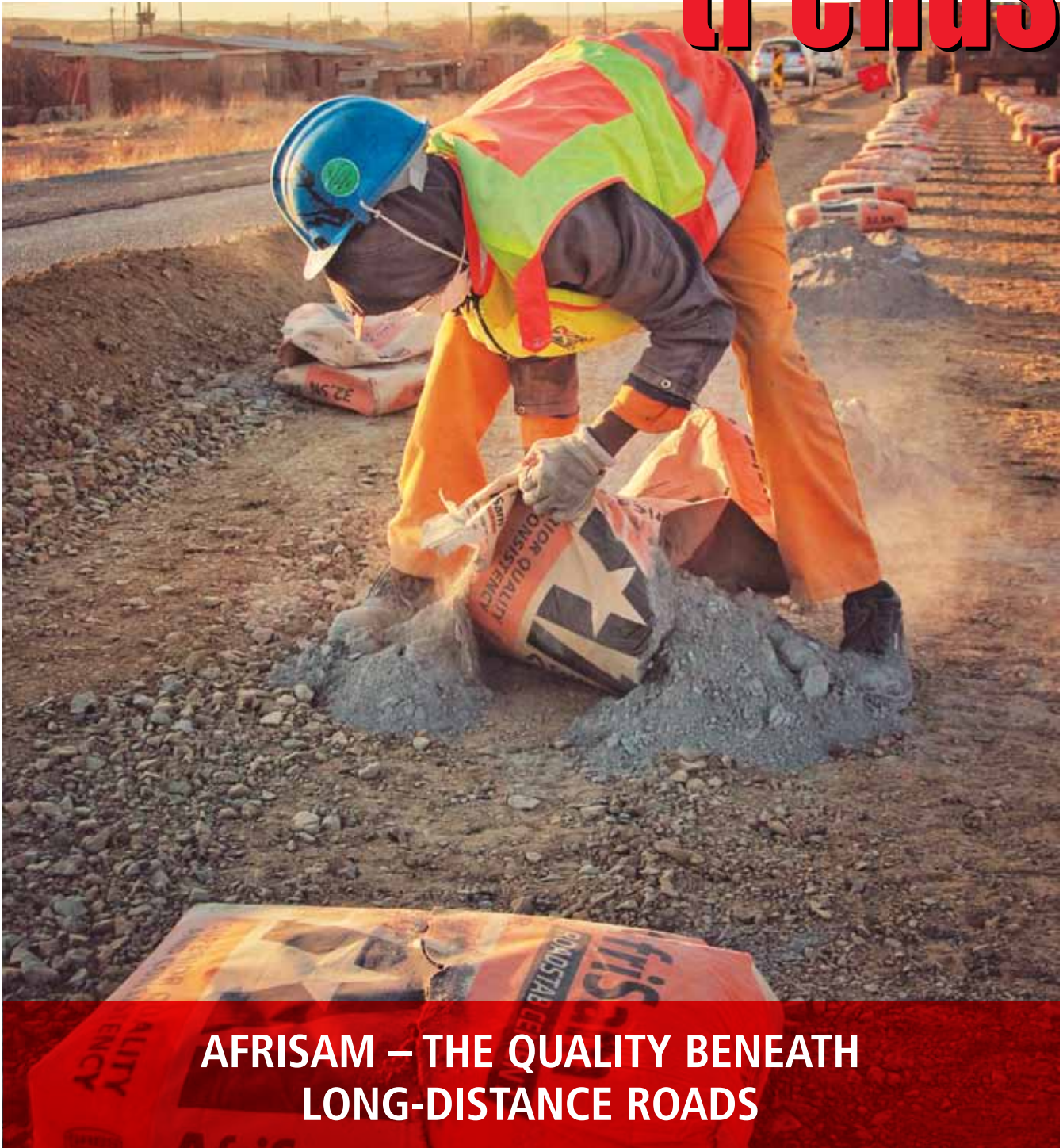


# CONCRETE

# trends

The voice of the industry



**AFRISAM – THE QUALITY BENEATH  
LONG-DISTANCE ROADS**

**THE BIG 5 INTERNATIONAL**  
Building & Construction Show



**MIXED USE**  
Developments



**Enhanced**  
Concrete Flooring

# LET'S BUILD AFRICA TOGETHER.

John Deere now offers the continent  
with a fitted range of construction equipment  
| Believe in greater



Check out our latest  
promotional offer



JOHN DEERE

Visit our dealerships for more info or contact our Sales Manager directly:

[MakgateGriffiths@JohnDeere.com](mailto:MakgateGriffiths@JohnDeere.com)

\*Terms and conditions apply (available at [www.deere.com/sub-saharan](http://www.deere.com/sub-saharan))  
[www.deere.com/sub-saharan](http://www.deere.com/sub-saharan) | [africa@johndeere.com](mailto:africa@johndeere.com) | Client Service: 0800 983 821

JohnDeereAfrica     JohnDeere 



# CONCRETE trends

The voice of the industry



## COVER

Investing in good quality structures is an important mindset especially for developing countries, he says, which cannot afford to be returning to projects for early repairs or rebuilding. This applies as much to each humble home as it does to megaprojects, and requires people to think ahead and consider the savings that good quality will bring.

# CONTENTS

Association trends . . . . . 4 – 7

Industry trends . . . . . 16

Cover Story . . . . . 8 – 9

Afrisam – Quality Cement – a cost effective investment for all South Africans

The Big 5

International Building and Construction Show

Nine specialised events . . . . . 10

Big 5 Women in Construction Forum and Awards . . . . . 12

Women in construction interview: Dr Shetha Alzubaidi . . . . . 14

Inaugural Big 5 Construction Impact Awards . . . . . 16

Concrete flooring trends . . . . . 18

Mixed use developments

Precast trends . . . . . 20

Belts and braces

Disruption-driven integrated construction

Equipment trends . . . . . 26

Destruction of grains during mixing

Equality trends . . . . . 28

Women in the construction industry? Absolutely

Training trends . . . . . 30

Training centre to meet urgent skills demands

Transport trends . . . . . 34

Accelerating women in transport

Safety trends . . . . . 35

Changing behavior for everyone’s safety



4



18



26



30

VICE PRESIDENT:  
**Devi Paulsen-Abbott**  
 email: DeviPaulsen@dmgevents.com

PUBLISHING EDITOR:  
**Nicholas McDiarmid**  
 email: NicholasMcDiarmid@dmgevents.com  
 T: +27 21 700 5500 M: +27 67 672 2503

EXHIBITION & PUBLISHING SALES MANAGER:  
**Kenneth Masvikeni**  
 email: KennethMasvikeni@dmgevents.com  
 T: +27 21 7005509 M: +27 72 686 6998

ADVERTISING:  
**Centaine O'Reilly**  
 email: centaineoreilly@dmgevents.com  
 Cell: 072 911 1904

MARKETING:  
**Cape Town office:** Zara Eckles  
 email: zaraeckles@dmgevents.com  
 T: +27 21 700 5511 M: +27 72 590 3207  
**Johannesburg office:** Saki Magoxo  
 email: sakimagoxo@dmgevents.com  
 T: +27 11 783 7250 M: +27 83 735 7213

DESIGN & LAYOUT:  
**Virgil Jacobs**  
 email: rykim@mweb.co.za  
 M: +27 83 524 5024

Sub Editor and Proof-reader:  
 Deidre Du Preez  
 email: deidredupreez98@gmail.com  
 M: +27 73 469 2434

PRINTED BY:  
**Onyx Press**  
 T: +27 21 593 9173



Published by dmgevents: Units 5 & 6, EDGE HOUSE, 16 Bell Crescent Westlake Business Park, Westlake, 7945, Cape Town, South Africa  
 Tel +27 (0)21 700 5500 | Fax +27 (0)21 700 5519  
 76 11th Street, Parkmore, South Africa, 2196 | PO Box 650302, Benmore 2010 | Tel + 27 (0)11 783 7250 | Fax: +27 (0)11 783 7269



ISSN 1560-2710

Endorsed by industry:



dmgevents and the editorial team accepts no responsibility for any opinions or statements in this publication. Consequently no person connected with the publication of this journal will be liable for any loss or damage sustained by any reader as a result of action following any statements or opinions expressed herein.

# The many lines of development



Nicholas McDiarmid

It has to be said that even a virtual event can have your feet feeling as wonderfully tired and useful as three days walking a conference floor!

**The African Construction Expo 2021**, produced by dmg events SA and sponsored by BuildingPoint SA, Eaton, PMSA and Knauf – and with Huawei as a key sponsor and partner of the **Smart Cities Summit** – was a digital experience rich with indispensable, targeted content and honest panel discussions.

Hosted across three collocated events on a meeting platform second-to-none, it was difficult to fit everything in and every second was well worth it. Yes, I do miss the schlep to the airport, the hotel food and the dreadful heartburn of conference platters. But... from a business point of view, it was all there. And I'm not alone in feeling equipped to handle the year coming with a road map we all need more than ever right now.

## THE ROADMAP

**African Construction Expo 2021** made it clear that we need these events more than ever before. The digital format has the advantage of materials available immediately, and contacts established quickly. But the ability to really listen to the clear messages coming from important players in the public and private sector are too important to be missed. Things are changing faster than we think. We are no longer on a line, let alone a straight one, when it comes to economic and social development. In some areas, pressures are on and lives need saving-the gloves are off. Do you understand the incredible benefits of

engaging with our talented emerging enterprises and contractors? If not, this is the time for it. Women-owned construction companies – beyond the holding companies - are dynamic, and those that have made it through even four completed projects have demonstrated a variety of patience, tenacity and outright determination most of us will never understand. South Africa – especially in its role as a regional economic engine – has no choice but to plan, stand and deliver. We welcome the fact that Treasury is forced into ensuring we are spending in the right areas.

In my recent interview Chris Campbell, CEO of Consulting Engineers South Africa, we discussed the **National Infrastructure Plan 2050**, and behind all the details is one simple fact: political will. Circumstances beyond everyone's control has engendered a political will for economic development structured for the common good. Now the question is, how do we maintain this? The economic crises that will be lumped into the 'blame it on the pandemic' basket is a big threat. All of us have a role to play in the national development value-chain, and we can and do make a difference. Every blind eye turned; every process dodged, weakens the collective immune system of political accountability.

There is so much to report on, and as usual I wish you a great read in this edition. And join us online - [www.concretetrends.co.za](http://www.concretetrends.co.za) – for daily updates, articles, interviews and product news. And – of course – events. In this edition we are bringing you dmg events' **Big 5 International Building & Construction Show** – happening now online, and in-person from September 13 in Dubai. Much to see, from a global perspective that literally opens new worlds of ideas and opportunities to succeed in the 'new normal'. ■



**SMART  
CONCRETE  
WATERPROOFING  
ELIMINATE RISK WITH KIM**

KIM (Krystol Internal Membrane Admixture) contains Krystol technology. When added to concrete, Krystol chemically reacts with water and un-hydrated cement particles to form insoluble needle-shaped crystals that fill capillary pores and micro-cracks in the concrete and block the pathways for water and waterborne contaminants. Any moisture introduced over the lifespan of the concrete will initiate crystallization, ensuring permanent waterproofing protection.

- Corrosion protection
- Durability
- Safe for potable water
- Self healing and more...



SMART CONCRETE®

[www.sanika.co.za](http://www.sanika.co.za) | 0114253061 | [info@sanika.co.za](mailto:info@sanika.co.za)



# ACCESS AND OPPORTUNITIES NOT TO MISS

*"More than 300 local companies in the construction sector in KwaZulu-Natal are set to benefit from an empowerment project by the Department of Human Settlements and Public Works..."*



**INCREASE YOUR MARKETSHARE IN THE REGION, GET ACCESS TO THE LATEST PROJECT AND TENDERS AVAILABLE AT KZN CONSTRUCTION EXPO:**

KZN infrastructure budget of R16.449 billion for 2021/22 will be allocated as follows:

- R9.514 billion went to existing infrastructure
- R2.202 billion to non-infrastructure
- R1.166 billion to new assets

**STEP AWAY FROM THE SCREEN AND JOIN US IN PERSON!**

**KZN**  
**CONSTRUCTION**  
**EXPO**



**30 NOVEMBER – 1 DECEMBER 2021, DURBAN ICC**

**CONNECTING THE CONSTRUCTION INDUSTRY  
IN KWAZULU-NATAL**

**EXHIBITION SPACE IS NOW LIMITED – BOOK YOUR SPACE TODAY!**

Contact Kenneth Masvikeni T: +27 21 700 5509 E: [KennethMasvikeni@dmgevents.com](mailto:KennethMasvikeni@dmgevents.com)

# Cement & Concrete SA's School of Concrete Technology

## Guidelines on effective cement storage

***Proper storage of cement is important to prevent heavy financial losses from cement absorbing moisture, not only by direct contact with water but also from the air as the material is hygroscopic. Poorly stored cement bags will either set as hard as stones or produce poor quality concrete, warns John Roxburgh, senior lecturer at Cement & Concrete SA's School of Concrete Technology.***



John Roxburgh

**H**ere Roxburgh provides some guidelines on the storage of cement bags.

Cement will start deteriorating after about three months inland or even just one month at the coast or in humid environments. So, if you must store the bags for a long period of time, opt for a 'first-in-first-out' system to use old stock first. Labelling the stacks with arrival dates will help in this regard.

If creating a special shed or storage space on site, the ground surrounding the walls should be sloping away from the walls so that water is drained away properly. Storing cement in the basement of a building is never recommended.

To further lessen the effects of possible moisture ingress from damp walls, the cement bags should be stacked at least 50 to 60cm from the exterior walls. Furthermore, to minimise moisture absorption, and reduce air flow between the bags, it is wise to stack them close to each other. Doors and windows should be kept shut to prevent damp air entering the storage area.

It is also important not to store products such as fertiliser, gypsum, and chemicals with cement bags as even small levels of contamination could adversely affect the performance of the cement when used in concrete, plasters or mortar. Different types of cement should be stacked separately and new consignments not placed on older stacks.

The bags should be kept off the floor surface. Instead, store them on plastic sheets on pallets or wooden planks, about 20cm from the floor. Ideally, the bags should be covered with waterproof layers of tarpaulin or plastic. Cement that has become lumpy, due to exposure to moisture, should not be used for important projects but might – after extensive performance testing and at the discretion of an experienced engineer – still be suitable for low strength concrete for non-structural purposes.

Cement bags are generally stored in pallets of 40 bags with each pallet eight bags high. Often two pallets are stacked on top of each other but this is not suitable if the bags are going to be retrieved by hand from this height – up to 12 bags in height is suitable for retrieval by hand. It is also important to note that a 50kg bag of cement must be handled and carried by two labourers.

Stacking lengthwise and crosswise, alternately, should keep the stacks intact. Ensuring that the aisles between the stacks are sufficiently spacious – at least 1m wide – to prevent accidentally damaging the bags. Never use hooks to move cement bags as puncturing the packaging will almost certainly lead to exposure to moisture. Dropping the bags should be avoided for the same reason.

In organising delivery of cement, transport should rather be avoided on days when the weather is bad. However, if rain or fog is expected during transport the cement bags should be stacked on pallets on the bed of the truck. The bags should not rest directly on a moist truck deck and the pallets must be wrapped in plastic and then should be covered with a tarpaulin placed so that water splashing upward from the deck of the truck will not wet the cement bags. During heavy showers, cement bag unloading should be delayed until the rain has stopped.

Finally, as direct contact with cement can cause skin burns, it is important that workers involved with the movement of cement bags wear appropriate personal protective equipment such as boots, gloves and eye protection. ■



*Cement bags should be handled with care from offloading to storage, CCSA has advised*



# Unlocking the future for construction industry artisans and leaders



John Matthews

**T**he Skills Development Act of 1998 seeks to empower the South African workforce with skills, to ensure employees access more opportunities for skill acquisition; create space for the new entrants to the labour market to gain work experience, introduce transformative tools through training and education to redress unfair discrimination practices in the labour market.

“As technological advancements and the Fourth Industrial Revolution bring significant changes to the construction industry, so the businesses and people operating in this shifting landscape need to equip themselves with the necessary skills to adapt and succeed,” says former President of Master Builders Association of the Western Cape (MBAWC) and Chairman of The Skills and Education Trust, John Matthews.

Celebrating its 130th year of existence, the MBAWC has historically offered training for Artisans in the building industry in the Western Cape. The MBAWC Skills Programme was, however, formalised in 2002, at around the same time as the Construction Sector Education & Training Authority (CETA) was introduced.

With a focus on continually upskilling workforces in the built environment, the MBAWC took the decision to purchase the Belhar Training College at the time as a way of ensuring that more students were exposed to the skills needed to successfully operate in the construction industry.

Matthews said that it soon became apparent, however, that the Association could not be all things to all people and within a few years, sold the college to Northlink and formed the MBAWC Skills and Education Trust with the proceeds. “Since then, the Trust has grown from strength to strength and supports not only employees of members of the MBAWC, but also non-members within the industry. The Trust has over the years assisted more than 180 people become qualified Artisans, in addition to training many other individuals in various additional disciplines.”

To adapt to the changing landscape of the industry, the Trust has had to change its approach in recent years. While Artisan training remains a priority, the Trust now offers training across various levels within the building industry, adopting a more holistic approach. This in addition to granting bursaries to students studying in the built environment, regardless of their year of study.

Matthews says significant changes in the industry have required a change in the types of skills needed.

“There has been a shift from focusing purely on what were previously deemed hard skills – that is, working physically with one’s hands – to include managerial and supervisory-centered skills. This shift has come about to boost Artisan specialist skills in order to bridge the shortage of entrepreneurial skills which have become necessary in the changing landscape. Our approach now is to enable trainees not only to hone their artisanal skills, but to manage their time, their teams and possible risks of their respective projects efficiently.”

The shift in the sector has also allowed for more employees to become supervisors, a role that requires a holistic view of the project. “Several people who have been through our skills programmes have moved from supervisors into senior management roles. A few have also been headhunted abroad. We believe our skills programmes do not only provide participants with valuable skills, they unlock the future for them,” adds Matthews.

From a legislative perspective, the MBAWC Skills Trust has remained abreast of all construction sector requirements. “To reduce on-site injuries, legislation related to Health and Safety has become increasingly stringent. This has also led to the Trust providing specialised training to aspiring Health and Safety Officers, who, once qualified, are able to register with the SACPCM, in order to work in health and safety departments on construction sites. The demand for Health and Safety Officers has increased in the sector, as they play a pivotal role, particularly on-site,” notes Matthews.

Matthews says the industry needs to continuously upskill its members to remain abreast of technological advances. “As the MBAWC we believe that skills enhance quality. When someone has the skills to build a house for a client, and it is done properly the first time, that person is likely to get a call back or a reference from that particular client. We have a vested interest in enhancing skills, because we know that the more skills people have, the better the quality of their output and as a result, we secure the future of our industry.” ■

**ALCO-Safe**  
(Pty) Ltd

What are drugged employees costing your company?

**Alcohol and drug testing specialists**

High speed testers capable of testing high volumes of people at site entrance/exit points and portable instruments with digital readouts for use at remote sites providing immediate printed evidence.

### JusCheck

An screen device which is simple to use. For the detection of drug abuse in saliva. Test accurately for 6 drugs in 5 minutes.



**NEW!**

### AlcoBlow® Rapid Test

Strongest and fastest breath alcohol tester on the market. AlcoBlow® Rapid Test requires the smallest breath sample and ensures accurate results first time, every time. Results are obtained within seconds. Very economical operation, no disposable mouthpieces are required.



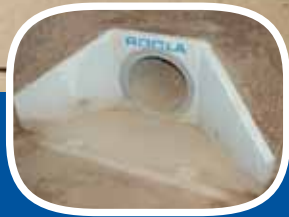
Find out why over 5000 businesses trust our products and expert levels support in policy development, legal advice and after sales service.

Ensuring safer working environments for over 40 years

Help is one call away +27 12 343 8114 or visit [www.alcosafe.co.za](http://www.alcosafe.co.za) for more information

# ROCLA

OUR DIFFERENCE IS CONCRETE



## A STRONG FOUNDATION FOR INFRASTRUCTURE SUCCESS

ROCLA is South Africa's leading manufacturer of pre-cast concrete products.

Surpassing 100 years of product excellence.

- Pipes
- Culverts
- Manholes
- Poles
- Retaining walls
- Roadside furniture
- Sanitation

Including other related products within infrastructure development and related industries.

Visit us on  
[www.rocla.co.za](http://www.rocla.co.za)  
for our nationwide branches



CMACS  
APPROVED



Association trends

## CMA awards for excellence goes online



Liandre Bezuidenhout

In recognition of the outstanding work of its producer members, the Concrete Manufacturers Association is hosting its first online Awards for Excellence Competition – The Digital Awards for Excellence – #AFE2022.

#AFE2022 is a spectacular digital precast concrete event showcasing some of the best examples of South African precast concrete applica-

tions. Entries are open to CMA members in various product segments in either Aesthetic or Engineering categories or, as in some cases, in both.

"Hosting the competition online opens up an exciting array of marketing opportunities, giving our members unprecedented levels of local and global exposure," says CMA marketing assistant, Liandre Bezuidenhout.

"The worldwide web provides the ideal communication hub for the built environment, and events which were publicly hosted prior to Covid, are now migrating to the digital space. After weighing the benefits of a digital event against the challenges of an attendee event in Covid's new normal, we were left in no doubt that the former was our best option.

“Online events also allow the tracking of attendees and the gathering of contact information on an unprecedented scale.”

"Digital events save time and eliminate a smorgasbord of costs which traditional events incur. These include extensive planning, travel, accommodation, setup, and other logistical costs.

"By contrast digital events are more sustainable, and thanks to lower costs and resource usage, can be staged with greater frequency – advantages which are readily enjoyed by both the host and attendees.

"Online events also allow the tracking of attendees and the gathering of contact information on an unprecedented scale. They enable hosts to track and analyse data pre and post-event in real time which provides essential information for improvements to future online events.

"Moreover, digitally hosted events can be pre-recorded before being staged. This allows presentations to be reviewed and polished for optimal delivery to desired audiences and overcomes the problem of international time zones."

Award entries can be viewed on the CMA YouTube channel and the CMA LinkedIn and Facebook page.

Access social media channels to stay up to date with the latest #AFE2022 entries and more #AFE2022 news. And don't hesitate to hit the like and share button on your favorite entries. ■





# Rooting out price fixing in mining and construction



Nico Pienaar

**S**urface mining industry association, ASPASA, has set out a comprehensive set of guidelines to prevent its members and their clients from intentionally or unintentionally fixing the prices of the products that they produce.

The line between collusion and prudent pricing can be blurry at times and the association has set out to debunk and demystify the process of pricing and bidding with a set of guidelines for all its members.

"We need our members and customers to be alert to price fixing and be able to recognise what constitutes uncompetitive behaviour and take action to prevent it. Ignorance is no excuse in the eyes of the law and it is our aim to arm our members with information that will prevent them from accidentally falling foul of the law and alert them to circumstances that may be perceived to be contrary to fair competition," says Nico Pienaar, director of ASPASA.

He adds that the guidelines are available to members and

includes information on the following:

- What is bid rigging, rotation and suppression
- Surface mines, construction managers and suppliers' obligations
- Consequences of breaking the law
- Fines and disqualification of directors
- Criminal prosecution and imprisonment
- Reputational impact
- Ensuring compliance with competition laws and what practices break the rules
- Whistleblowing

The guidelines also include templates of non-collusion agreements and other important notes to ensure compliance with competition legislation. It also covers bribery and the implications of being involved in illegal practices. It also outlines the consequences of breaking the law.

There is also advice for mine managers and construction projects directors to identify the signs of corruption and how to make it clear that this type of behaviour will not be accepted on their sites. The same applies to sub-contractors and suppliers to these industries. ■

Find our branches at [www.technicrete.co.za](http://www.technicrete.co.za)

## FINISHING Touch

paving | mining | masonry | kerbs | erosion protection | retaining walls | drainage

#### SUITABLE FOR:

- Car parks
- Industrial Estates
- Retail Centres
- Pedestrian areas
- Domestic Drives
- Motorways | Garages
- Service areas

#### APPLICATIONS:

- Tongue & groove
- Standard grey or traffic calming colours
- Precast
- Various sizes available
- Highest quality

Technicrete is a subsidiary of ISG, a leading supplier of innovative infrastructure products to the construction and mining markets in Southern Africa.



CMACS  
APPROVED



TECHNICRETE

# Quality Cement –

## A cost effective investment for all South Africans

*More than ever, South Africans need to be building a future with a strong foundation and structure, which means putting the best quality materials into our projects – from homes, schools and office blocks to roads, bridges and dams.*



*Investing in good quality structures is an important mindset especially for developing countries*



*Richard Tomes, AfriSam Sales & Marketing Executive*

**R**ichard Tomes, sales and marketing executive at construction materials leader AfriSam, highlights in particular the quality of cement as the ‘glue’ that holds the country’s infrastructure together.

“Seldom is there a vital ingredient of public value that goes more unappreciated than a high quality cement,” says Tomes. “It is central to the way we create our modern world and facilitate development, providing a cost effective path to a better future.”

He emphasises that it is not the commodity but the quality that is key. Just as safety is a basic requirement for air travel, so quality is the basis on which AfriSam designs, manufactures and targets its range of cement products.

“The use of quality cement in large infrastructure projects – including some of our busiest highways – has ensured the country of significant cost savings into the future,” he says. “We underestimate how the right choices made decades ago are positively impacting on us today; where quality cement has gone into structures long ago, there is less maintenance needed today – and hence more resources can be directed elsewhere, even to people in need when times are hard.”

### FUTURE SAVINGS

Investing in good quality structures is an important mindset especially for developing countries, he says, which cannot afford to be returning to projects for early repairs or rebuilding. This applies as much to each humble home as it does to mega-projects, and requires people to think ahead and consider the savings that good quality will bring.

With almost nine decades in the business of cement and concrete technology, AfriSam has developed a range of fit-for-purpose cements which prioritise quality – both in their manufacture and their application.

“The social context of our cement offering is important to us, and affects the way we align our cements to the market,” says Tomes. “Home owners, for instance, know that they want a long lasting structure that will not cost them money in years to come – due to structural cracking, for instance.”

### EXTRA MILE

Even where literacy rates and product knowledge are low, customers deserve a cement that will deliver this result, he says. AfriSam’s responsible approach is to ensure that there is no confusion in the selection of an appropriate product. The company’s All Purpose Cement is therefore a specially engineered superior quality cement that can be used in a wide variety of structural and

residential applications, including bricks, blocks and masonry.

“In South Africa, there is a considerable risk that a lack of expertise could lead to an incorrect choice, with someone mixing concrete with a cement meant for plastering, for example,” he says. “We avert that safety risk by going the extra mile and raising the quality of our All Purpose Cement to meet all the key requirements of that market segment.”

In the manufacturing sector, time is of the essence, he notes. Producers of roof tiles, paving and precast items are driven by turnaround times which determine the efficiency of their operations. For this purpose, AfriSam provides its Rapid





*The use of quality cement in large infrastructure projects has ensured the country significant cost savings into the future*

Hard Cement to deliver high early strength – allowing for products to be cured more quickly, for faster release to market.

### ROAD AHEAD

“While many people will see only the thin bitumen layer on the long distance roads on which they travel, it is really the quality of what lies underneath that matters,” says Tomes. “Creating a firm foundation for roads needs a special cement that gives contractors time for mixing and compacting, before it starts to set.”

The solution is RoadStab, a specially produced cement that, when applied with the necessary expertise and experience, can provide roadbuilders with a long lasting result without potholes.

Infrastructure development frequently demands large structures which require specific curing qualities in concrete. AfriSam was extensively involved in the Lesotho Highlands Water project, for instance, where dam walls required large pours to form blocks that were both thick and deep. Other examples in recent years include the bases for wind towers, constructed as part of South Africa’s nascent renewable energy sector.

“As the concrete in these structures matures, considerable heat is generated that is capable of causing cracks if not well controlled,” he says. “Our specialised cement for these applications ensures that there is not too much heat produced during the curing process – once again underpinning the quality and longevity of our national infrastructure.”

### RESPECT FOR PLANET

While achieving its range of fit-for-purpose cements to support growth in various economic segments, AfriSam has also prioritised environmental sustainability. Its engineers and concrete specialists have been focused not only on the products themselves but on the process by which these products are manufactured and how climate change impacts can be reduced.

“Through our ongoing innovation and research – and by extracting raw materials of good quality – we can augment our products with extenders, most of which are by-products from our coal generated electricity or from the steel production process. These products come in the form of fly ash or raw slag which is processed to make them suitable for use in cement production or direct inclusion in concrete mixes,” he says. “These extenders have contributed to the reduction in AfriSam’s carbon emissions, to the extent that AfriSam average carbon content per kilogram of cement is well below the global average.”

Recognising the water scarcity of our geographical region, AfriSam has also

developed “low water demand” cements. This means that when using AfriSam’s products in mortar, plaster or concrete mixers, you could be contributing positively to our country and the environment by using less water than you would with standard “high water demand” cements or what we simply refer to as thirsty cements.

### ASKING THE CUSTOMER

Tomes highlights the importance of assessing the results of all these quality initiatives to be responsible and responsive to customers. As part of its AfriSam Way Customer Experience project, a survey is conducted twice a year to canvass the feedback of market participants. This Voice of Customer Survey is carried out by an independent research agency, and brings back the opinions of customers across the board.

“The questions they are asked cover all the touchpoints of customers’ engagement with us,” he says. “They span everything from their first call to our contact centre to the advice they received, their use of the product, the technical support they received and the performance of the product in their projects as well as how the payment and management of the account is handled”

“Those of you who enjoy traveling will know that you can check-in to one of the best hotels, have a great stay, experience awesome service, but the way you are treated when you check out and settle your bill ends up being the thing that gets remembered and might possibly determine whether or not you will recommend this venue to family or friends in future. Having customers recommend us through a high net promoter score (NPS) is a critical measure in terms of the feedback we get from customers,” he says.

This allows AfriSam to measure its success in turning the quality of their cement and service into positive value for the customer, and in turn to others who benefit from the customer’s concrete product or structure.

“With quality as a key focus, AfriSam people measure their performance in terms of how much value they create for each customer,” says Tomes. “After ensuring that the best quality goes into our products, we also want to support our customers in applying them correctly and to best effect.” ■



*Homeowners know that they want a long lasting structure that will not cost them money in the years to come*



◀ AfriSam has developed a range of fit-for-purpose cements which prioritise quality

# THE BIG 5

## International Building and Construction Show

***Celebrating its 42nd year, the Middle East, Africa and South Asia (MEASA) region's largest and most influential event for the construction industry has so far confirmed more than 1000 exhibitors from 45 countries and 20 country pavilions, and reveals an online networking and meeting facilitation add-on that will help organisations kick-start their businesses wherever their location.***

In a recent report released by MEED Projects, the Projects Data and Intelligence Partner for The Big 5, it has been revealed there were a \$163 billion worth of contracts awarded in 2020 in the Middle East and Africa despite COVID-19 impact, and \$1.9 billion worth of projects are currently in execution in the region.

**Three** high-level summits

**The first** Big 5 Construction Impact Awards,

**70** free-to-attend and CPD certified Industry Talks

**The Big 5 Online**, a powerful new digital platform enabling important trading opportunities for the global construction market in the wake of the COVID-19 disruption

Josine Heijmans, Vice President at dmg events, the organiser of The Big 5 foresees that powerful face-to-face connections between industry stakeholders is key for the sector's continued development. "With \$5.06 trillion worth of projects planned and unawarded across all sectors in the Middle East and Africa construction market it is more important than ever to offer a safe environment for the regional and international community to come together where they can boost business activities, rebuild partnerships, and discuss vital lessons learnt all in one place," she announced.



Josine Heijmans - Vice President (Construction), dmg events

### NINE SPECIALISED EVENTS

The Big 5 welcomes exhibitors to nine specialised events this year, offering visiting professionals the chance to source the latest industry innovations for any stage of the construction cycle. Heavyweights signed up to exhibit include Caparol, Soudal, Saudi Ceramics, Mahy Khoory, Zamil Air Conditioning, Climatech, Emirates Steel and many more.

Christian Witsch, Chief Executive Officer, Gulf Extrusion, said: "For many years, we have been representing our products and innovations at The Big 5, which is a very important and great event for our industry. After one year of interruption due to COVID, we are very excited about the possibility to meet and engage with our important customers and the interested community about our products at The Big 5 once again."

### CUTTING EDGE SUMMITS AND TALKS – 70 SESSIONS

High-level summits at The Big 5 this year include the highly anticipated Global Construction Leaders' Summit, the Future of Facades Summit, and the FutureTech Construction Summit, all designed to shed light on crucial developments in the construction sector, covering all aspects of the industry from facades to building technology, whilst exploring long-term opportunities on the horizon. The popular free and CPD-certified talks series will continue at the event, with 70 sessions set to cover vital industry topics.

### THE BIG 5 HEAVY & MIDDLE EAST CONCRETE

The Big 5 Heavy and Middle East Concrete are the region's largest events dedicated to the infrastructure and concrete construction community. This year, the events are back to live in person, providing a safe environment for you to meet new suppliers, discover innovative products and learn from industry experts.

Featuring specialised events, an exclusive awards ceremony, strategic high level summits, CPD Talks and more, there's no better place for construction professionals to reconnect!

- Windows, Doors & Facades Event
- Gulf Glass
- GHVAC R Expo
- GThe Big 5 Solar
- GMiddle East Stone
- GUrban Design & Landscape Expo
- GFM Expo





# THE GLOBAL HUB FOR THE CONSTRUCTION INDUSTRY

18 - 21 SEPTEMBER 2022  
DUBAI WORLD TRADE CENTRE

SCAN TO  
EXHIBIT IN 2022



[WWW.THEBIG5.AE](http://WWW.THEBIG5.AE)

**CONNECT. GROW. SUCCEED.**

Specialised events at The Big 5:



**THE BIG 5 WOMEN IN CONSTRUCTION FORUM AND AWARDS**

Recognising excellence in the region's construction industry, The Big 5 Women in Construction Awards return to highlight the positive socioeconomic impact a gender-balanced workforce has on transforming the construction industry, while the new The Big 5 Impact Awards have been created to recognise sustainable development, technological and digital achievements in the construction industry.

“...a space for exhibitors and visitors to plan, promote, and follow up with one another in their own time and from anywhere – meaning you can dedicate the in-person event to effective face-to-face meetings with the most relevant players.”

A recent study by McKinsey highlights that organisations in the top-quartile for gender diversity on executive teams were 21% more likely to outperform on profitability and 27% more likely to have superior value creation.

Josine Heijmans, Vice President – Construction at dmg events adds: “As we pursue our mission to support and move

the building industry forward, we can't but recognise that the implementation of proper diversity and inclusion policies in organisations are key to business success. Diversity and Inclusion (D&I) policies in organisations not only boost business but brings in different insights and experiences to combat the several major challenges that we face each day.

To that end we are excited to feature The Women in Construction Forum & Awards once again at The Big 5, with the objective of promoting diversity and inclusion policies that increase productivity in construction businesses and remove obstacles in the career path of women in the industry.”

The online platform went live on 22 August and will remain live until 17 November 2021, maximising the value of shared access to the wealth of information, innovations and trend to an increasingly globalised sector. Designed to support your in-person experience, it is a space for exhibitors and visitors to plan, promote, and follow up with one another in their own time and from anywhere - meaning you can dedicate the in-person event to effective face-to-face meetings with the most relevant players.

Organised by dmg events, The Big 5 runs from 12-15 September 2021 at the Dubai World Trade Centre with alongside The Big 5 Heavy, Middle East Concrete, Windows, Doors & Facades Event, Gulf Glass, HVAC R Expo, The Big 5 Solar, Middle East Stone, Urban Design & Landscape Expo, FM Expo. ■

To know more, visit [www.thebig5.ae](http://www.thebig5.ae).



HELD UNDER THE PATRONAGE OF THE MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING, URBAN DEVELOPMENT AND PUBLIC WORKS IN KENYA



**24 – 26 NOVEMBER 2021**  
**SARIT EXPO CENTRE, NAIROBI**

Co-located with three specialised events



# KENYA'S MOST IMPORTANT EVENT CONNECTING THE CONSTRUCTION INDUSTRY

**TO SELL YOUR PRODUCTS AND SERVICES IN THE KENYAN MARKET, CONTACT US TODAY:**

**Meryem Haddadi**

Sales Manager

T: +971 56 4047856

E: [MeryemHaddadi@dmgevents.com](mailto:MeryemHaddadi@dmgevents.com)

SCAN QR CODE TO SEND AN ENQUIRY:





# Women in construction interview: Dr Shetha Alzubaidi



Dr. Shetha Alzubaidi

**The Big 5 hosts Dr. Shetha Alzubaidi, Chief Executive Officer & Partner at Brookson Project Management, as a Women in Construction Ambassador in 2021.**

events such as The Big 5 Women in Construction Awards are so important.

## LOOKING FORWARD

With a concerted effort from key industry players there is a chance that more women will view a career in construction as a great one. Some of the successful D&I policies are eliminating derogatory behavior, bullying and harassment, as well as providing clear development and training opportunities to narrow the gender gap. Mentoring is also an effective way of retaining female staff and helping them climb the career ladder.

Construction has traditionally been thought of as male-dominated and if you were asked to name a female role model in the sector you'd probably be hard pressed to think of anyone. Here are some of the D&I ideas to support women empowerment in construction:

1. To treat staff fairly regardless of age, race, and gender;
2. To offer flexible working policy in order to encourage mothers returning to work after maternity leave;
3. To offer flexible working such as working from home;
4. To fund training seminars for women and an inclusive leadership training programme;
5. To assign career coaches and mentors to females;
6. To improve gender pay equality ■

Here's what Dr. Shetha Alzubaidi revealed ahead of the Women in Construction Forum & Awards:

## WOMEN IN INDUSTRY

The presence and status of women in engineering has improved dramatically over the last half century. However, the progression of professional women into positions of leadership has been slow. Many women have worked hard to take gender out of the equation to simply be recognized for their skills and talents.

Integrating leadership into one's core identity is particularly challenging for women, who must establish credibility in a culture that is deeply conflicted about whether, when and how they should exercise authority. But powerful women are scarce.

Having said that, the industry has changed quite a lot for women and there are a lot more women on site now than there used to be. The culture has also changed, even the PPE (protective clothing) we wear has been tailored to fit women, with higher waisted trousers and the tops fit better.

## WOMEN SUPPORTING WOMEN

Gender diversity in the construction industry is shockingly poor. Women make up just 11% of the entire workforce, but even this figure includes many who work behind a desk, often in design, management, or secretarial roles. On building sites themselves, it is estimated that 99% of workers are men. Yet, despite everything, there is still reason to remain positive as with every challenge there is an opportunity. We shouldn't be ashamed of being a woman, we should be comfortable being ourselves. The fact that there aren't many women in construction differentiates us, as we get an opportunity to be role models and it's a great industry to be part of.

The ability to reach gender parity within the construction sector lies partly with the women who have already made a name for themselves in the industry. By sharing their success stories, they are encouraging others to look at construction as trades for women. This is why the construction networking

## ABOUT DR. SHETHA ALZUBAIDI

Dr. Shetha Al-Zubaidi is the CEO and partner of one of Alfahim Avenue Investment Group companies called Brookson Project Management. She has international experience in UK and the Middle East for full range of development management extending over twenty five years. Leading and managing a team that coordinates all issues relating to the design, development & construction activities of major projects.

From 1990 to August 2004 Dr. Shetha worked for leading consultancies in UK participating in different projects such as Capita Business Centre in Blackburn. From August 2004 to August 2007 Dr. Shetha worked for UAE leading real estate master developer, Nakheel, participating in different mega structure project such as Palm Jumeirah, Arabian Canal and Palm Deira. From August 2007 to February 2015 she worked with Al-Rajhi Group as Developments Director / Vice President in two real estate companies in UAE, Tatweer UAQ & Tameer Holding Investment. From February 2015 to June 2017 Dr Shetha worked as a Senior Vice President in Damac Properties leading international and national projects.

Dr. Shetha holds BSc in Civil Engineering. MSc in Environmental Geo-technology and PhD in Civil Engineering from UK.

# Inaugural Big 5 Construction Impact Awards

## Champion Sustainable Building Practice

***Celebrating entries and nominees from regions extending beyond the United Arab Emirates to include Saudi Arabia, Egypt and Oman, and all the way from Kenya to India, the inaugural Big 5 Construction Impact Awards shortlist reflects an immense quality of projects, with strong collaboration featuring across the region's construction sector.***

**J**osine Heijmans, Vice President at dmg events, noted some valuable insights to be found in the shortlisted entries, which were unveiled 10 August: "I am delighted that in its first edition The Big 5 Construction Impact Awards has received entries from hundreds of leading architectural, engineering and construction businesses operating across the Middle East, Africa and South Asia," she began. "The projects market throughout the Middle East and Africa expects a strong rebound this year and is one of the fastest growing markets in global context" Heijmans concluded: "We are excited to recognise the businesses and people behind this outstanding resilience."

The Big 5 Construction Impact Awards honour the people, organisations, and projects that are driving sustainable development, innovation, and transformation in the regions' booming construction industry.

### DRIVEN TO MEET SUSTAINABILITY GOALS

Inspired by the United Nations' Sustainable Development Goals, The Big 5 Construction Impact Awards is a platform to celebrate the achievements and transformation of the construction industry, and at same time motivating for sustainable practices by including criteria that go beyond traditional measures of project delivery.

### 2021 FINALISTS

Five of the 15 categories are awarded against criteria measuring sustainable development and finalists for the standout 'Sustainable Initiative of the Year' include:

- Dubai Municipality, Dubai Authorities, Emaar
- Jordan GBC
- Skidmore, Owings & Merrill (SOM)
- The Arab Contractors Company
- Turner & Townsend

Finalists have been assessed against individual category criteria by an independent and international judging panel. Caspar Herzberg, President at Schneider Electric Middle East & Africa, speaking for the high-calibre judging panel, emphasised this, saying: "I'm pleased to congratulate finalists on their inspiring achievements across all categories, especially the high standard of submissions for sustainable building initiatives." Driving the point further, he continued: "Sustainable building has become a foundation for all projects in the global construction sector, and I am delighted to see entries from the region that show dedication and excellence in delivery of sustainable practices in their building approach."

The Big 5 Construction Impact Awards features 15 categories in total to celebrate architectural, engineering and construction businesses' contribution to sector's growth. ■

## The Big 5 Online: maximising your in-person experience

**T**he online platform went live on 22 August and will remain live until 17 November 2021, maximising the value of shared access to the wealth of information, innovations and trend to an increasingly globalised sector.

Designed to support your in-person experience, it is a space for exhibitors and visitors to plan, promote, and follow up with one another in their own time and from anywhere – meaning you can dedicate the in-person event to effective face-to-face meetings with the most relevant players.

### KNOWLEDGE RESOURCES

Continuous professional development is key to enhance your competency and to keep your knowledge up-to-date, as well as to reinforce the credibility of your company.



At The Big 5, we understand the importance of training and education and that's why we offer hundreds of free CPD-certified educational sessions at the show, and also a comprehensive library of online resources for all construction

professionals.

These include: White papers | Webinars | Video library | Interviews & Case Studies | Podcasts

Organised by dmg events, The Big 5 runs from 12-15 September 2021 at the Dubai World Trade Centre with alongside The Big 5 Heavy, Middle East Concrete, Windows, Doors & Facades Event, Gulf Glass, HVAC R Expo, The Big 5 Solar, Middle East Stone, Urban Design & Landscape Expo, FM Expo. To know more, visit [www.thebig5.ae](http://www.thebig5.ae). ■

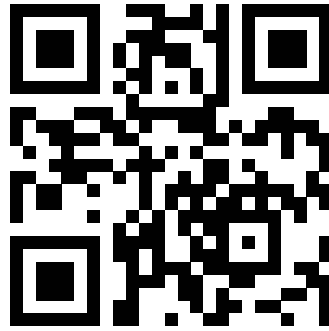




# CONNECTING THE CONCRETE INDUSTRY IN THE MIDDLE EAST

18 - 21 SEPTEMBER 2022  
DUBAI WORLD TRADE CENTRE

SCAN TO  
EXHIBIT IN 2022



[WWW.MIDDLEEASTCONCRETE.AE](http://WWW.MIDDLEEASTCONCRETE.AE)

## CONNECT. GROW. SUCCEED.

Co-located with



Organised by

**dmg** events

# Faith Tshepiso Mabena: construction found me

Thinking about the construction industry in Africa could well bring images of bricks, cement and men in overalls and hard hats to mind. In an industry that is largely male dominated and characterised by stiff competition, the story of Faith Tshepiso Mabena is all the more inspiring, proving that dreams and passions cannot be dampened or discriminated against.

Mabena is an award-winning businesswoman and trailblazer in the Western Cape construction industry, whose efforts are being recognised during Women's Month in South Africa.

Born and raised in Soshanguve, Pretoria, Mabena and her family were quite nomadic before they settled in Midrand. Her mother was a determined single parent, who treated her children equally and various household chores knew no gender. As a result, she says her brother is an exceptional cook and she feels at ease about working in construction.

Mabena obtained a BCom in Marketing from the University of South Africa (UNISA) in 2009. In addition, she completed a National Home Builders Registration Council (NHBC) Women Empowerment Programme through the Gordon Institute for Business Science; an eight-month course in Project and Financial Management, Entrepreneurship, Legislation and Technical acumen at the Eskom Contractor Academy and finally, an Entrepreneurship and SME Growth Strategy course via the University of the Western Cape which was sponsored by the MBA Western Cape. It is clear that her journey into the construction industry was not a linear path.

Mabena did not start off in the construction industry. "When I completed matric, I had to start working due to financial constraints. My first job was as a receptionist, before I was promoted to customer service representative and then account manager. I then moved to Cape Town in a marketing director role before quitting to start my own business."



Faith Tshepiso Mabena

The construction industry "found" Mabena in 2014 after a few failed business ventures and she 'stumbled' into construction by chance and has never looked back. Her company – Nokhanya Services – employs 20 permanent team members and creates jobs for hundreds more people when her projects are in the construction phase. The business has completed numerous projects such as the subsidised Infill Development of 450 units in Mfuleni, Bardale, which was awarded in 2015.

Having recently been promoted to a full member of the Master Builders' Association in the Western Cape, Mabena says she is now part of an organisation whose members are encouraged to work to the highest possible standards – aesthetically, technically and ethically at all times.

She says being a contractor in a male-dominated industry hasn't been easy. "It takes a lot of hard work and dedication and I've had to prove myself every step of the way. That said, I believe women are just as capable of operating in the construction industry as men. We are good at inspiring people. We are observant, pay attention to detail and communicate well. And finally, we are patient and know how to multitask."

She suggests that young women not be daunted by entering the construction industry. "Unless we do something about it, the industry won't change. We are the game changers and while this is not an easy journey, it is worth it. The key to succeeding is being relentless. The difference we can make in the industry is immense. Just remember: anything is possible, the impossible just takes longer."

With women who are brave and willing enough to be the change that they want to see in the world, Mabena has shown that there is space for women in construction. All that needs to happen is for women to lay the first brick themselves. ■





# DIGITAL AWARDS FOR EXCELLENCE



PRESENTED BY THE CMA

2022 DIGITAL AWARDS FOR EXCELLENCE



Participation  
#AFE2022

## WHY TAKING PART IS A GOOD IDEA...

01

### ONLINE MARKETING

- IMPROVED SEO
- ONLINE VISIBILITY
- MODERN MARKETING APPROACH.
- VIDEO AND VOICE OVER FOR FUTURE USE.
- EXTENDED MARKETING PERIOD UP TO 6 MONTHS

02

### ENDORSEMENT

- TAKING PART ENDORSES YOUR PRECAST CONCRETE PRODUCTS AS QUALITY PRODUCT.
- IT SHOWCASES PRODUCT APPLICATION AND SUCCESSFUL PROJECT DELIVERANCE.

03

### CONFIDENCE

- TAKING PART IN AFE2022 WILL ADD TO YOUR DIGITAL PRESENCE AND INSTILL CONSUMER CONFIDENCE.

04

### PRESTIGE

- PARTICIPATION WILL PROVIDE AN AIR OF PRESTIGE THAT WILL BE VISIBLE THROUGHOUT- THE DIGITAL LANDSCAPE.

WE ARE EXCITED TO HOST THE DIGITAL AWARDS FOR EXCELLENCE AND TO DIGITALLY SHOWCASE QUALITY PRECAST CONCRETE PRODUCTS AND PROJECTS OF CMA MEMBERS.

FIND MORE INFORMATION ON THE CMA WEBSITE - [INITIATIVES/2022-DIGITAL-AWARDS-FOR-EXCELLENCE](https://www.cma.org.za/initiatives/2022-digital-awards-for-excellence)

## CONCRETE MANUFACTURERS ASSOCIATION

CONTACT DETAILS

TELL: 011 805 6742

EMAIL: [ADMIN@CMA.ORG.ZA](mailto:ADMIN@CMA.ORG.ZA)

WEBSITE: [WWW.CMA.ORG.ZA](http://WWW.CMA.ORG.ZA)



# Ucrete Industrial Flooring

## Uncompromising Safety and Hygiene

**T**he Covid-19 Pandemic has raised the bar when it comes to safety and hygiene, and put surface contaminants in the public eye.

Ucrete industrial flooring sets the benchmark for attractive heavy-duty flooring. It is quick and practical to install, meeting all the needs of the modern processing industry for safety and performance. It is a unique suite of products that enjoys an unequalled reputation for performance, built up over five decades of use throughout the food, beverage, pharmaceutical, chemical and engineering industries. Ucrete's longevity minimizes downtime and ensures a safe, hygienic and efficient working environment, making it the most cost-effective flooring solution.

Described as the 'world's toughest floor', Ucrete is a heavy duty polyurethane system, formulated to withstand extreme temperatures, and meeting the world's toughest standards. Ucrete has both HACCP and Halaal certification required for the Food and Beverage industry.

Clinton Seager, Flooring Sales Manager at Master Builders Solutions South Africa, has over 15 years' experience in industrial flooring applications and the expertise to fully understand the benefits of Ucrete: "The qualities of Ucrete that sets it apart from other – seemingly similar – products is its highly specialised formulation that Master Builders Solutions has gone to incredible lengths to deliver consistently worldwide," Seager explains that Ucrete is only manufactured in select locations around the world, meaning that no matter where it is applied, its formulation is guaranteed.

"In South Africa, we concentrate on the clients' requirements for their specific industry," continues Seager. "Irrespective of the thickness of the Ucrete systems, the chemical resistance of Ucrete remains the same." Seager is touching on the very properties that really matter in industrial flooring surfaces. It is critical to understand this when it comes to application.

Master Builders Solutions SA is as uncompromising about its application of the various Ucrete systems, as they are about its formulation. "We distribute Ucrete exclusively through professional applicators trained by Master Builders Solutions, all of whom must have the correct tools, machinery and equipment that meet the quality standards for the installation of Ucrete," Seager emphasizes. "Certification is contingent on the successful completion of the projects, and brings with it

continuous support from us," Seager concludes. Training can be offered in South Africa's major regions.

Master Builders Solutions SA have distributors in numerous SADC markets, including Zambia, Mozambique, and Namibia, and throughout South Africa.

### THE KEY BENEFITS OF UCURETE

- Durable: excellent impact & wear resistance for extended product life, as evidenced by numerous 20 – 30 year-old Ucrete floors in aggressive environments still in service
- Fast application and curing, even at low temperatures
- Ability to be fully serviceable after only 5 hours at 10 °C, making it ideally suited for refurbishment work
- Moisture tolerant: Can be installed onto 7-day-old concrete without the need for special primers, helping to stay on schedule on fast-track projects
- Thermal-shock resistance, capable of withstanding spillages up to 150 °C, depending upon specification
- Chemically resistant, withstanding exposures that would rapidly degrade other types of resin flooring
- Clean and safe for workers, products and the environment
- Certified by the Eurofins Indoor Air Comfort Gold standard for low emissions
- Hygiene: Cleanable to the same standard as stainless steel and resists biological growth

### 8 REASONS TO CHOOSE UCURETE

#### 1. Hygiene

Using Ucrete results in improved hygiene, thanks to the flooring's seamless surface, which is particularly important in the food and beverage sector. Standard floors can be problematic in this environment. For example, with a surface such as tiling, care must be taken to clean the more porous grout thoroughly to avoid dirt and bacteria growth harboured between tiles. Chipped or broken tiles result in voids that can provide a further breeding ground for bacteria. In contrast, Ucrete floors are cleanable to the







same standard as stainless steel and do not support bacterial growth. You can learn more about the significance of hygienic flooring for food production and food safety here.

## 2. Lower Cost of Ownership

Ucrete flooring is more cost-effective than any other floor over its service life, as it needs less maintenance, cleaning and refurbishment than standard flooring options. Weighing up cost in use against initial outlay should form an essential part of the specification criteria. Using Ucrete, you'll gain many years – and decades – of service through market-leading chemical, temperature and wear resistance.

## 3. Less Production Downtime – Faster Installation

Loss of production is costly, so reducing or eliminating downtime is crucial for the efficient and productive management of factories. When refurbishment or new installation is required, Ucrete's fast installation results in less production downtime than many other floors. Using Ucrete, flooring applicators can also cover a large area in a much shorter time when compared to other typical industrial floors.

## 4. No Cracking

In a production setting, standard floors can be prone to cracking and damage. In some instances, a surface that isn't monolithic may wobble, shift or even crack if the screed underneath isn't level, or if there is regular thermal shock. Cracked areas that have allowed water and bacteria ingress into the substrate are a hygiene and cleanability issue, as well as being a potential slip hazard to employees.

## 5. Fast Refurbishment

Repair and refurbishment should always be about risk limitation and solving existing problems rather than potentially cause more. Here, monolithically bonded Ucrete offers clear advantages in production facilities: lower maintenance and better durability than standard floors, particularly in the first 10-20 years. It won't crack or spall and absorbs direct impact by distributing it throughout the system.

When old flooring reaches the end of its useful life, safe production can be compromised. Damaged flooring can result in trip hazards, while cracks can harbour bacterial growth. Choosing flooring that will keep maintenance to a minimum manages the impact of lost production time traditionally required to refit a process environment.

Ucrete's fast-curing systems enable uncompromised permanent fast-track flooring repairs and refurbishments. Floors can be returned to a safe and hygienic condition in the minimum time – they can be back in service in as little as five hours' cure time at 10°C.

## 6. Sustainability in Service

Ucrete is a sound choice for sustainability in use, as it needs less energy for maintenance and less water for cleaning than some standard floor surfaces – highly relevant in production areas where a high level of hygiene is essential. The cleaning and maintenance of an industrial floor can account for up to 90% of its cumulative energy demand. By specifying a sustainable Ucrete floor, you can reduce the use of important resources, critical for both the

environment and operating costs. When installed correctly, Ucrete floors can provide a virtually maintenance-free flooring solution for in excess of 30 years, even in the most demanding conditions.

## 7. Safety Underfoot

Safety is a key issue in selecting a floor, particularly at production sites with wet process areas. With Ucrete, you can achieve fewer slips, trips and falls than with a standard floor, thanks to its wide range of slip-resistant options.

The cost of slip incidents cannot be underestimated. Slip related incidents in the food industry are significantly higher than the industrial average and are a key contributor to major injuries. In today's litigious culture, using the best possible floor is the most sensible defence. Achieving optimum slip resistance with a Ucrete floor supported by best practice cleaning and appropriate footwear creates a safe environment for employees.

## 8. Aesthetic Options

We recently launched Ucrete CS in Europe – an innovative, colour-stable Ucrete system that sets new aesthetics standards. Colour stability means reduced surface staining allowing for greater flexibility for safer factory design.

## CONCLUSION:

### If you want a floor

- ... that stands up to aggressive production environments
- ... that does not support bacteria or mould growth
- ... that has bacterial cleanability comparable to stainless steel
- ... that can be put back into service after just five hours at 10 degree C
- ... that resists a broad spectrum of aggressive chemicals
- ... that provides good looking floors with stain-resistant and colour-stable options
- ... that withstands regular and routine discharges of boiling water
- ... that can be installed rapidly on to 7-day-old concrete and other high moisture content substrates
- ... that minimizes your downtime
- ... that reduces your maintenance costs
- ... that prevents accidents, with slip-resistant profiles for wet and greasy environments
- ... that is shown to provide long-lasting solutions over 10, 20, 30 or more years
- ... that helps protect the environment
- ... that has over 50 years' proven track record

**Then the choice is simple, only a Ucrete floor will do. ■**

For more information on our product lines, please visit our website at <https://www.master-builders-solutions.com/en-za>



# Mixed-use developments drive construction trends

**M**ixed-use developments are a growing trend in the residential property development market because they reduce travel time for residents and offer more convenience, choice and an integrated lifestyle. On the part of developers, the decision-making involved may be more complex, but this can be balanced against more robust income models. "All in all, mixed-use developments represent a positive alternative to our disintegrated, mono-functional South African cities," comments Paragon Group Director Henning Rasmuss.

The Melrose Arch development in Johannesburg, in which Paragon Architects participated as a start-up design practice, first prodded developers into considering mixed-use precincts as an alternative model. However, complacency and the resistance of banks and their credit risk committees to merged and mixed income models have scuppered many a mixed-use project in the past. The contracting economy and more demanding, urbanised and car-less, younger middle-class consumers are changing that though.



## DEVELOPING FOR NOW, OVERCOMING THEN..

Rasmuss points to many capacity constraints affecting development at the moment. Affordability limits are squeezing the number of square metres, coupled with young upper middle-class consumers still opting for traditional first-time home ownership. This is also partly due to the fact that the traditional South African city has working, living and playing areas neatly separated by vehicle corridors.

"Overlay apartheid spatial planning onto this, and we end up with dysfunctional cities that are expensive, inefficient and alienating. Some of the mixed-use trends derive from consumer demand and a new perception of city life as something desirable with high amenity and social value," highlights Rasmuss.

A major driver of mixed-use developments in South Africa is the massive shift in ownership of B-grade and C-grade office buildings due to Covid-19, many of which are now available for residential redevelopment. "There is not much else one can do with those workplaces left behind by shrinking companies. Costs of transport, non-available infrastructure budgets and a general demand for urban convenience are driving housing demand to shopping malls, which have additional challenges of underperformance and can support additional bulk off existing infrastructure," stresses Rasmuss.

Bulking-up developments on top of or next to shopping malls and their parking lots can insert additional housing

adjacent to malls. Associated trends include micro-living in highly-serviced buildings, highly-branded low-cost urban renewal projects and, for the mass market, price-point-driven walk-up apartments, with student housing falling somewhere into the low-cost refurbishment market.

## NEW URBAN SPACES

An example of a contemporary large new-build mixed-use project is the Harbour Arch precinct in Cape Town, which Rasmuss acknowledges "is probably leading the way." The 5.8 ha Harbour Arch development by the Amdec Group will be home to six individual tower blocks with a total 200 000 m<sup>2</sup> of usable space, making it the first and largest mixed-use development of its kind in the Cape Town central business district.

It is comparable to the Melrose Arch precinct in Johannesburg, and will encapsulate the principles of New Urban living. This presents opportunities for people to live, work, play, relax and stay in a safe, convenient, enjoyable and sustainable community-focused environment. Expansions and redevelopments in the Cape Quarter similarly show that there is viable demand.

While Paragon is not involved with Harbour Arch, there are a number of mixed-use developments that are on the Group's radar. Also in Cape Town, it is working on an intricate site in the City Bowl that encompasses varied development functions. A super-flexible masterplan is afoot at the Newlands Rugby Stadium, while in Nelson Mandela Bay the architecture and interior architecture group is working on a mixed-use precinct centred on sport as a connector. "It is interesting that open spaces are becoming desirable and valued, especially in tough South African urban settings," notes Rasmuss.

## URBANISING AFRICA

In Malawi, Paragon Group is working on a mixed-use precinct in Lilongwe adjacent to the airport, based on the Millennium Development Goals as a design driver. In Angola, it is being commissioned to design a super-integrated business and living complex in the middle of Talatona. "That project will have 'a little bit of everything' and opens up opportunities for multiple smaller co-developers, breaking the mould of dominant family-based control of major projects in that city. It is a large site that can comfortably be phased," elaborates Rasmuss.

From a continental perspective, Rasmuss points to the traditional East African super-mixed-use multi-storey retail and residential complexes that line so many streets in Kampala and Kigali, and also Accra and Dakar. "There are definitely lessons here about what can be achieved," he adds. Hence mixed-use is quite natural on large parts of the continent.

"It is important to think of mixed-use as 'the natural normal', and not as a new and risky thing. It is how people want to live – naturally. What happened under the tenets of modernist planning is that people across the world had their lives disaggregated and distorted. There is hopefully now a reversal to 'real cities for real people'," predicts Rasmuss. ■





## Partners, Materials, Machinery, Vehicles Aligned Quick Mix Synchronised Ready-mix Supply

**T**he demand for reliable, quality ready-mix has never been higher. The challenges brought by the Covid-19 Pandemic to an already difficult operating environment makes your choice of construction site suppliers critical to the success of all construction projects.

The need for effective supply chains delivering top quality materials at very competitive prices is more essential than ever, with increasingly complex projects being executed in decreasing timeframes. Procurement that fits the needs of the project whilst controlling costs must maintain consistent quality control, ensure uninterrupted supply while establishing long-term business relationships to ensure profitability of current and future projects. Suppliers offering a full package with a reputation of delivering quality products at the right time gives contractors an enormous advantage in the construction process.

### THE QUICK GROUP

Quicksand & Brick Supplies and Quick Readymix have been leaders in Gauteng supplying sand, aggregates, bricks, cement and ready-mix concrete to the civil, commercial and residential construction industry.

Quicksand was established in 1991 by the CEO and Founder Stef Botha to be a reliable supplier of building materials the construction sector sorely needed. Delivering to Centurion, Midrand, Johannesburg's Northern suburbs, Bronkhorstspuit and Kempton Park, with a fleet of over 35 vehicles, the company is able to supply to smaller owner-builder projects as well as large-scale civil and commercial projects.

### A NETWORK OF SUBSTANCE

Sand, aggregates, bricks and cement is sourced through a well-developed network of quarries, mines, factories and manufacturers in and around Gauteng enabling the company to offer customers a wide variety of materials to suite each project's specific needs. Integral to the company's success is its focus on the optimal utilization of its fleet, equipment and personnel to ensure reliable and cost-effective service delivery. This is facilitated through its rigorous fleet management systems and in-house workshop coupled with state-of-the-art technology.

### QUICK MIX ESTABLISHED ON SOLID GROUND

Quick-Mix started operations in 2005 when an opportunity was identified to diversify Quicksand's current product offering to its established customer base to include ready-mix concrete. Due to the reputation of Quicksand and its ability to supply to large and small projects, Quick-Mix soon became a supplier of

superior quality concrete of choice, and today operates from three batching plants located within Gauteng.

While Quick-Mix initially focused on serving small to medium sized projects, the company's drive for perfection and strict quality control measures together with the backing of some of the best concrete technologists in the industry, has seen Quick-Mix gain a substantial share of a market served by several larger listed ready-mix companies.

With a strong focus on technical aspects of concrete, as well as exploring innovative solutions, Quick-Mix is able not only to deliver standard concrete products of exceptional quality, it is able to successfully fulfill the needs of a niche market in the supply of decorative and highly technical concrete products.



### SYNERGY, SYNCHRONISATION AND SERVICE

With the synergies created between the two companies, it is able to offer customers a one-stop-shop for aggregates, bricks, cement and ready-mix concrete setting it apart from all other role players in the industry. The group's strong focus on values of quality, integrity, reliability and respect has been carried forward by the second generation of management who continue to build on the successes of the past while constantly looking at new and innovative ways to grow and strengthen the Group for the future. ■

# Disruption-driven integrated construction



Keabetswe Nkotswe

Even though the COVID-19 pandemic has had an impact on the property market across South Africa, there are still significant investment opportunities to be had, especially in the residential sector. In line with this, Pretoria has emerged as an attractive destination with several areas showing great potential for growth, says Keabetswe Nkotswe, TUHF portfolio manager.

“There has been steady progress, but it really has been an ongoing process of forging relationships with key stakeholders at local government, the municipalities, property developers, universities, and other role players to identify the hotspots. We are focusing on the inner city, but the likes of Silverton, Sunnyside, Capital Park, and others have emerged as great investment opportunities,” says Nkotswe.

According to Nkotswe, one of the major trends has been interest in family-led units in Pretoria West. However, Arcadia, Sunnyside, and Gezina have proven popular with younger families looking to share accommodation with friends. A central

theme behind this growth has been easy access to amenities and transport to the Pretoria CBD.

Of course, the amount of higher learning institutions in Pretoria makes it attractive for student accommodation as well. But there is concern that student housing might be on a bubble that could burst at any stage. As such, there is a focus on residential accommodation – that lends itself to being adaptive if need be – as opposed to the more traditional student-res type.

“With Pretoria generally being cleaner and more laid-back than Johannesburg, families are finding great appeal there. Convenient access to shopping centres, banks, churches, schools, and transport, not to mention the nightlife in different parts of town are all contributing to making Pretoria the perfect springboard for investment – and for the post-pandemic new normal,” she adds.

## STYLE, COMFORT AND CHANGE

It is particularly multiple bedroom units with spacious kitchens and lounges that have been in demand. The reason being that multiple individuals can rent them and have a ‘lock up and go’ setup. This is ideal for those who are staying in the inner city for work and going home over the weekends.

“Given how the pandemic has resulted in many people losing their jobs, they are looking to downgrade to smaller



## WARDCO FINISHING SYSTEMS

Specialist Industrial Finishing Equipment Supplies . . .

Including



TLS-F450E



TLS-795



TLS-595  
Resin Injection Unit



Pumps for Sprayable Cementitious, Grout & Intumescent Products  
Injection of Resin & PU Products | Texture Coatings | Road Marking | Spray Painting  
Spraying Equipment | Industrial Sandblasting.

15 Years' importing and manufacturing of specialist industrial finishing equipment

wardco@mweb.co.za

+27 (0)11 894 7910

www.wardco.co.za

Paul Ward +27 (0)82 558 9428

Geraldine Fritz +27 (0)76 866 2903



spaces that are more affordable. And the best thing is that these multiple bedroom units are future-proof to transition into family-led environments when the time comes," says Nkotswe.

There are plenty of deals to be had, but the challenge has been for investors to come up with the required equity. Nkotswe says that plenty of exciting buildings are becoming available in the market. "With the work from home environment being part of the new normal, many offices and commercial buildings are available. These provide brilliant investment opportunities to convert into residential spaces."

### WORKING TOGETHER

For TUHF, it has been important to forge relationships with auction houses and estate agents to provide the necessary leads when relevant commercial property becomes available.

"The inner-city is especially exciting for us. We have been very proactive in being on the ground and engaging with the community; from building managers to shopkeepers and other people who know the areas and understand the dynamics at play. We are passionate about this community engagement, which also becomes a great awareness driver for us," concludes Nkotswe. ■

## BAMR – 75 Years of quality, service and value

**B**AMR is celebrating its 75th anniversary this year. Fred Duk, a major in the Airforce, returned from the war to establish BAMR on 22 May 1946. Frank, took over in 1961 and Graham Duk, Fred's grandson, became involved in 1998. BAMR remains a customer-focused, family-owned business.

In its early days, the company focused predominantly on instrumentation in the coating industry with the Air Force being the first target focus with Fred's background. To this day, the business remains loyal to its core business principles.

BAMR has been the suppliers and distributors of Elcometer instruments and equipment since 1947. They are the sole officially authorised Elcometer distributor and partner in South Africa and most of Africa. The first export sale for Elcometer in 1947 was through BAMR.



the coating thickness, other gauges and applications in this industry include:

- Material thickness
- Surface cleanliness
- Surface profiles
- Climatic conditions including moisture
- Coating thickness – including Wet and Dry Film
- Pinhole and Porosity Testing
- Adhesion Testing



BAMR team

BAMR represents some of the Market Leaders in the World in Southern Africa and strive to combine quality products at competitive prices, with personalised service.

Applications for the Elcometer Protective Coating Inspection range includes any application where you are applying a coating to a substrate including painting a ship, a tank or a structure such as a stadium. Other than measuring

"BAMR is very much a family business. When my brother decided to do his own thing, my wife, Helena stepped in and has been actively involved and instrumental in the marketing side of the business. As the Elcometer business has grown and become more sophisticated, so has our representation of the brand on the African continent" explained Graham, the current owner. "Although a Cape Town based business, we have key account managers in Johannesburg and in KZN and our footprint extends throughout Anglophone and sub-Saharan Africa."

"With our partners on both the supplier front and the distribution front having similar philosophies with regards innovation and customer service, we are very excited about the future of BAMR." says Graham. ■

For more information about BAMR please feel free to visit our website [www.bamr.co.za](http://www.bamr.co.za) or contact us by phone or email +27 (0)21-683-2100 | [sales@bamr.co.za](mailto:sales@bamr.co.za)



# Foxcrete Concrete Pumps

## Safely Reaching New Heights in Concrete Pumping

**E**stablished in 2007, Foxcrete Concrete Pumping has built up one of the most impressive fleets of concrete pumps alongside a reputation for safety and reliability, that puts the most challenging construction jobs within practical reach.

Foxcrete Concrete Pumping head office is situated in Kempton Park in Gauteng's East Rand, with branches in Durban, KwaZulu-Natal and Nelspruit, Mpumalanga.

### CONCRETE EVERYWHERE AND ANYWHERE WITHIN REACH

Foxcrete Concrete Pumping's boom pumps can pump concrete directly from concrete mixers to anywhere concrete needs to be, including hard-to-reach places at multiple stories. The fleet is as strong as the Foxcrete Concrete Pumping's skill-base, with combined capabilities covering concrete slabs, columns, bridges and dams.

Foxcrete Concrete Pumping boom pumps contain powerful hydraulic pumps that lift and position lengthy pipes through which the concrete is pumped and poured. Our pumps can pump up to 160m<sup>3</sup> per hour which makes finishing a job quick and easy.

### THE HEIGHT OF SAFETY

"Conducting work safely is our first priority. We aim to achieve the highest practicable level of health and safety as well as strive to inspire zero harm in our concrete pumping operations.

### THE FOXCRETE FLEET



#### 32M CONCRETE PUMPS

Our 32m Putzmeister concrete boom pumps are perfect for small to medium concrete placing projects. It has a vertical reach of 32 meters and can pump at a rate of 160m<sup>3</sup> per hour.



#### 36M CONCRETE PUMPS

Our fleet consists of a few 36m Putzmeister and 36m Zoomlion concrete boom pumps. They have a vertical reach of 36 meters and can pump at a rate of 120m<sup>3</sup> per hour.



#### 37M CONCRETE PUMPS

Our 37m SANY and 37m CIFA concrete pumps are suitable for medium to large concrete placing projects. These concrete pumps have a vertical reach of 37 meters and can pump concrete at a rate of 150m<sup>3</sup> per hour.



#### STATIC PUMP

A static pump (also known as a line pump or stationary pump) is perfect for projects where a concrete boom pump cannot reach. Static pumps can pump a horizontal distance of up to 2000 meters and a vertical distance of up to 400 meters, with a pump rate of 150m<sup>3</sup> per hour.

### 10 BENEFITS OF CONCRETE PUMPING

Concrete pumping by far outweighs the traditional method of placing concrete, from labour costs to unbeatable manoeuvrability for hard to reach areas. The top 10 are:

1. Concrete pumping is a faster and easier method to complete a project
2. Concrete pumping can reduce labour costs
3. It reduces site congestion as there are less construction workers
4. You can get concrete to high rising and far reaching places
5. Pumping of concrete is done before the concrete starts to set, improving concrete strength
6. Pipelines can travel wherever you want them to go
7. It provides a steady work pace, increasing productivity
8. Several pumps can pour simultaneously for larger projects
9. It is effective and economical for various sized projects, including residential and commercial
10. Concrete pumping has a large application, including foundations, slabs, columns, bridges and dams



Foxcrete 36m Zoomlion

### RISK AND SOLUTIONS

With high capabilities come risks. This is why concrete pumping is a specialist operation and requires the experience and disciplined approach to safety and planning. The investment of time, training and fleet optimisation that Foxcrete Concrete Pumping represents is what is required to ensure success on site.

### PUMPING DAY GOES SMOOTHLY WITH FOXCRETE CONCRETE PUMPING

Contingencies for breakdowns are tried and true:

- Concrete pump operators are highly trained, skilled and experienced, with documented proof of both operator training and health and safety.
- Availability of concrete pumps is another challenge Foxcrete Concrete Pumping is best-positioned to manage, with a varied and impressive fleet of well-operated and cared for concrete pumps.

### FOXCRETE CONCRETE PUMPING GUIDELINES

The complexity of concrete pumping is best managed in partnership. Foxcrete Concrete Pumping has powerful engagement tools to optimise your investment in our services. Preparing the right mix, ensuring the site is ready and taking care of special





Foxcrete 36m Nduna slab



Foxcrete 37m Kusha foundation

circumstances, such as pumping at height around electrical transmission and distribution cables, receives the attention it needs.

**SITE PREPARATION FOR A CONCRETE PUMP**

When a concrete pump is booked, site preparation needs to be in order before the concrete pump can work on the construction site:

- As a concrete pump is a large machine, there needs to be an adequate entrance for the concrete pump truck to enter the site to avoid damage to the equipment and the site.
- As a concrete pump has outriggers to keep it from falling over, there needs to be enough open space for the concrete pump to be set up. Concrete pumps usually need about 8 to 9 meters of space all around for the outriggers to be set up.
- The area indicated for the concrete pump should be level and stable. If not, the concrete pump is at risk of falling over and creating damage to the construction site and injury to the construction workers. Concrete pump operators usually indicate when an area is not safe for set up.
- Concrete is poured into the concrete pump from a ready mixed concrete truck. There has to be efficient open space

for the ready mixed trucks to enter the site and get the concrete to the concrete pump.

- When the concrete pump has to be established in a public road, the necessary road closure permits must be obtained from the traffic department by the site manager.
- Water has to be available on site as the pipes of the concrete pump have to be prepared before pumping starts as well as washed before the concrete pump leaves the site.
- There has to be an area on the site where the concrete pump can dump the excessive concrete when the job is finished. The site manager can decide where and if the concrete can be used somewhere else on the site.

**AND SAFETY FIRST**

There are no shortcuts when it comes to safety, and it is a fact of life that 17 years’ of experience, enhanced by consistency and training are at the core of Foxcrete Concrete Pumping.

**FOXCRETE CONCRETE PUMPING LOCATIONS**

Foxcrete Concrete Pumping head office is situated on the East Rand – Kempton Park, Gauteng, South Africa. Our other two branches are located in Durban, KwaZulu-Natal and Nelspruit, Mpumalanga. ■



**GAUTENG**

Address: 267 Glengylle Road, Pomona, Kempton Park, Gauteng, 1619  
Phone: 072 668 7046 | 011 963 3526

**KWAZULU-NATAL**

Address: Sunderland Rd, Umkumbaan, Durban  
Phone: 064 850 8558

**MPUMALANGA**

Address: Loco Rd, Vintonia, Nelspruit  
Phone: 072 668 7046 | 011 963 3526

Email: sales@concretepumping.co.za



# Destruction of grains during mixing of lightweight concrete

The use of lightweight concrete for the production of bricks and prefabricated parts is currently a major trend. The aggregates are offered in a range of grain sizes, and the amounts used in the recipes follow pre-defined particle size distribution curves. The particle size distribution curve determines the properties of the hardened concrete.

During mixing of the concrete, lightweight aggregates can be broken down into smaller pieces through friction, and when pieces get trapped between the mixing tool and the wall of the vessel this can lead to the destruction of grains, causing the particle size distribution curve to be shifted and the properties of the concrete to be altered. On conventional forced-action mixers the processes also depend to a significant degree on the size of the mixer and the mixing time. Investigations have shown that Eirich mixers cause less grain destruction and enable more uniform production.



Lower bulk density in lightweight concretes, in comparison to normal concrete, is achieved through the addition of lightweight aggregates. These have a high proportion of air pores and thus reduce the thermal conductivity of the material. These lightweight aggregates can take the form of naturally occurring minerals or synthetically produced mineral substances. Among these naturally occurring aggregates are natural pumice stone (from which bricks have been manufactured since the middle of the 19th century in the Neuwied Basin region of Germany) and lava slag/volcanic cinder.

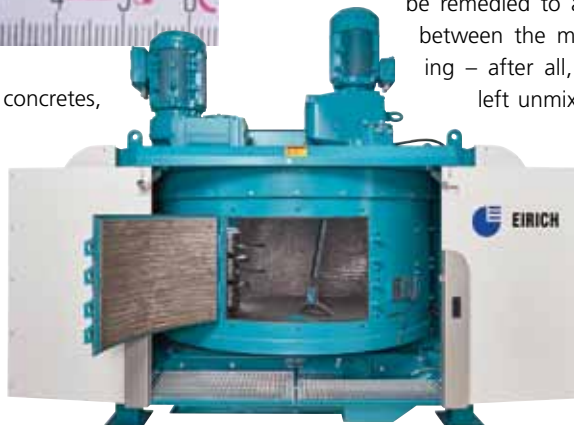
Today, synthetically manufactured lightweight aggregates are being used increasingly; examples of this include expanded clay or expanded shale. Natural rock is industrially processed in order to obtain the required porousness. The raw materials are finely ground, granulated, and foamed in rotary kilns. The end product is small, round rock pellets. As well as containing lots of air pores, these also have a largely closed surface, which means that they only absorb very little water. Today, scrap glass is ground down in a similar way to manufacture foamed glass, which has a particularly dense sinter skin.

## THE RIGHT TIMING

When the concrete is mixed, as the first step the lightweight aggregate is wetted with water – only then are cement and other powdery substances added. Liquid additives are added with the remaining water for mixing. The recommended minimum mixing time for lightweight concrete with a dense structure is 90 seconds after addition of all ingredients, compared to 30 - 60 seconds for normal concrete. It is documented in the literature that a demixing process is superimposed over every mixing process, which is why the mixing time in a conventional mixer cannot be extended arbitrarily. The best achievable mixing quality in any given situation is obtained after a certain length of time. If the mixing time is extended beyond this point, the quality of the mix will start to deteriorate.

## GRAIN INTEGRITY

When mixing lightweight concrete, the mixing quality is not the only factor – we also have to look at the destruction of grains that occurs during mixing. In conventional mixers the mixing tools run close to the bottom and side walls in order to move all of the materials and mix them in the process. Grains become trapped between the tools and the mixer housing and are broken down, resulting in a shift of the particle size distribution curve and increased water absorption. This effect also depends on the size of the mixer (larger mixers require more mixing tools) and the mixing time. This can only be remedied to a degree by increasing the gaps between the mixing tools and the mixer housing – after all, we don't want anything to be left unmixed on the bottom of the mixing container.



In an Eirich mixer, the material being mixed is transported by an inclined, rotating container. Mixing is performed by a rapidly rotating mixing tool, which is referred to as the rotor, and this has virtually no contact with the bottom of the mixing pan. Together with a stationary wall/bottom scraper and two small bottom cleaning blades on the rotor, this significantly reduces friction and wear on the one hand and leads to less grain destruction on the other. And since the material is fully mixed within a single rotation of the pan thanks to the combined effects of the rotor and the bottom/wall scraper, these mixers perform their mixing duties without any demixing at all. The dependency of grain destruction on the size of the mixer is also greatly reduced. Series 'R' Eirich mixers only have one moving mixing tool – whether at a size of 1 liter or 3000 liters. Having fewer tools means that less of the material being mixed gets trapped, thus resulting in less destruction of grains. If there are fewer tools, this also means that upscaling is significantly simpler. ■

# BIRKENMAYER HB20



**BIRKENMAYER**  
EIRICH GROUP

Place an order on the awesome and well placed Birkenmayer HB20 brick and block machine plant and receive a **spare set of mixing tools for the TM500 mixer.**



|                     |                |
|---------------------|----------------|
| Stock Bricks        | 19 000 / shift |
| Maxi Bricks         | 15 369 / shift |
| Rectangular pavers  | 13 340 / shift |
| Interlocking pavers | 13 340 / shift |
| Hollow blocks MB190 | 3 840 / shift  |
| Hollow blocks MB140 | 4 800 / shift  |
| Hollow blocks MB90  | 7 680 / shift  |

Reliable and easy to use with low running cost. 100% locally manufactured with excellent back up service when required.



H Birkenmayer (Pty) Ltd, Reg. no. 1975/004367/07, 56 Steel Rd, Spartan, Gauteng. PO Box 83, Isando, 1600, South Africa

Tel: +27-11 970 3880. Cell +27 82 417 6893. E-mail: sales@birkenmayer.co.za. www.birkenmayer.co.za

Directors: S J Eirich\*, R K Rohmann\* (\*Germany)



# Women in the construction industry? Absolutely!

By Boitumelo Thipe, Marketing and Business Development Manager, Master Builders Association North



Boitumelo Thipe

**M**eeet some of SA's women in construction, whose progress is helping to drive a culture of change in the industry

Once a male-dominated industry, the construction sector is undergoing major changes with more and more women successfully assuming positions once considered 'male' roles.

### WE MUST OVERCOME

Overcoming outdated stereotypes takes time, however. According to the Construction Industry Development Board (CIDB), by 2019 48% of the country's construction enterprises were owned by

women, but the CIDB January 2020 'Construction Monitor – Transformation' report found that women-owned contractors access just 20% of total public contract awards and make up only 30% of all contracting enterprises.

Master Builders Association (MBA) North has long called for a culture of change in the sector, with more opportunities and support for women in construction. This Women's Month, we spoke to three women in construction who are quietly forging ahead and in so doing, helping to change the culture of the industry:



**Eva Matjekana, Managing Director at MoPuMo Holdings,** Trained in the construction and carpentry industry and now head of a fast-growing construction business, Matjekana observes: "Construction is a very interesting industry to be in. It is still very much male dominated but there are lots of opportunities for women," she says. Matjekana notes that there are highs and

lows in any business: "When you hit those lows, you always remember that they're not there to last forever, but you pick yourself up and look forward to a new dawn by working hard in getting those projects. Enjoy the highs and make the best of the lows."



**Jackie Coetzee, Director at Victoria Letlapa Trading and Projects**

Women entering the construction sector should believe in themselves and not be afraid to venture into the unknown. "Nothing is off limits, go for it," she says. "My advice to any woman in the industry would be to be patient, work hard, strive to learn something new every

day, and be a sponge to absorb all the knowledge around you to make yourself better as a person and as a professional in the construction field."



**Thembi Maesela, director and shareholder of Marumo Green Projects**

A key lesson from Maesela is that managing costs and project implementation times is crucial for success. Her advice to women in construction is to push themselves by setting targets. "I set myself targets and I motivate my team by giving them targets, as well and give them bonuses

based on achieving their targets," she says.



**Cynthia Mfolo – award-winning CHSO Health & Safety Coordinator at Gothic Construction**

Cynthia Mfolo started working in the construction sector ten years ago, when attitudes were different. "It wasn't easy. Being a woman, with a health and safety background in a male dominated industry. The hardest part was to get my men colleagues to under-

stand that I'm not an enemy, because they all had a mentality that I'm a spy for the management." One factor that helped her win the support of her colleagues was the fact that she is fluent in 10 of the 11 official languages, she says. "I've created a good working and communication relationship with my team. I make all my team members feel valued, and they know they can talk to me about all their problems even if they are not work related," she says.

What we see from these successful women and others who are progressing in the sector is that – in addition to the right qualifications – determination and a can-do attitude go a long way to driving a culture of change within construction companies. ■

# Building women with Mbokodo Buildings



Thandeka Nombanjini-Nzama

**T**handeka Nombanjini-Nzama is on South Africa's true women pioneers in construction, with a fascination for the creation of our built environment which began in childhood, watching her father's work as property developer magically change the environment around her.

"Nothing ever came close to the feeling I had when watching a building go up, so when I finished studying public relations,

I knew was going into construction anyway, despite knowing my father's concern that it may be too much for me!"

Nombanjini-Nzama got her grounding in construction through internships and eventually working construction companies. "When I eventually struck out on my own, as ready as I believed I was, nothing really prepared me for the intricacies, risks and shear guts my first delivered project demanded of me," explains Nombanjini-Nzama.

The tenacity required to build her company, Mbokodo Buildings, into the pioneering 100% female led construction, specialising in General Construction and Civil Engineering works, is the same tenacity shown by the company's continuing success in changing the narrative of male domination within the industry.

Visit [www.concretetrends.co.za](http://www.concretetrends.co.za) to read Concrete Trends' full interview with Thandeka Nombanjini-Nzama, and how companies like hers are pioneering new ways of building sustainable, profitable construction enterprises by enhancing the role of women in the industry. ■



Concrete roof tile equipment manufactured by  
**JESSOP & ASSOCIATES (PTY) LTD**



**JESSOP & ASSOCIATES** is the only manufacturer in the southern hemisphere producing high speed concrete tile extrusion plants



Installed more than 100 concrete roof tile plants in Africa to date



Supplies over 1000 different spare parts from its stores in South Africa



Manufactures extrusion machines capable of multi-profile concrete roof tile production

TEL: +27 16 421 2521

INFO@PROTILE.CO.ZA | WWW.PROTILE.CO.ZA



# Training centre to meet urgent skills demand

**T**housands of people have acquired various building and civil-engineering construction skills at Tjeka Training Matters' state-of-the-art training centre in Randfontein, Gauteng, since it commenced operations in 2012.

They include employees of some of the country's foremost contractors, participants in the building and civil-engineering construction supply chains and government bodies tasked with delivering critical service delivery infrastructure. This is in addition to the many individuals who have launched their careers in the construction industry by enrolling themselves directly in various training programmes available at the facility over the years.



All training for the various building trades is undertaken in designated workshops or training areas

## HIGH VALUE SKILLS FOR A MARKET THAT NEEDS THEM

Frans Toua, Chief Executive Officer of Tjeka Training Matters, attributes the high success rate of the company's training interventions to an intense focus on equipping people with the skills they need to earn a living in the building and civil-engineering construction industries.

"At our training centre, we aim to impart skills that people can use to secure jobs, excel in their chosen fields of expertise or become self-employed. This is opposed to training for the sake of it and just to meet the requirements of the scorecard – a narrow-minded approach that has thwarted real efforts geared at addressing skills shortage in the South African construction industry. The fact that clients continue to use the services of the facility for their training requirements and individuals return to the centre to hone or expand their competencies bears testament to the success of our approach to skills development and training," Toua says.



As a private Technical and Vocational Education and Training College, Tjeka Training Matters is also able to adapt the content of its many training programmes at the facility and their commencement dates to suit client's workplace needs

Tjeka Training Matters' training centre in Randfontein is equipped to provide training that is geared specifically at the civil-engineering construction and building industries.

For example, it is able to present a myriad of building, civil, road construction, supervisory and managerial courses to more than 200 candidates at any point in time at a single location.

## FLEXIBLE CONTENT FOR BUSY SCHEDULES

As a private Technical and Vocational Education and Training college, Tjeka Training Matters is also able to adapt the content of its many training programmes at the facility and their commencement dates to suit clients' workplace needs.

In addition to learnerships and skills programmes, short training courses of between five and 20 days in duration are available at the facility. They have been developed specifically to meet the immediate needs of the construction industry to create employment opportunities on civil-engineering construction and building contracts.

All training for the various building trades, including brick-laying, carpentry, plumbing, plastering, tiling and painting, is undertaken in designated workshops or training areas. Able to accommodate between 15 and 20 candidates at a time, they also feature their own classrooms for theoretical instruction and simulated practical training areas.



Thousands of people have acquired various construction skills at Tjeka Training Matters' training centre in Randfontein

## PRACTICAL ENVIRONMENTS AND ACCOMMODATION

The practical component of the civil and road construction courses is presented outside in elected areas at the facility and the theory component of the training in classrooms.

Tjeka Training Matters also provides accommodation for learners. This includes three meals a day, as well as transport to and from the centre where necessary.

The plumbing course is one of the most sought after of the various building-related training interventions available at the facility. This is considering the major strides made by the Institute of Plumbing South Africa (IOPSA) and the Plumbing Industry Registration Board (PIRB) in establishing a clear career path towards becoming a licensed plumber.

Considering the high demand for plumbers at present, there are more job opportunities available in the profession than most of the other building trades. This has attracted many people to the centre to complete plumbing courses and individuals who are interested in freelancing the field or launching a small plumbing business.



# WE OFFER MORE CPD-ACCREDITED CONSTRUCTION FOCUSED TRAINING COURSES THAN ANYONE ELSE!



ECSA | SACPCMP | ASAQs | SAIOSH | SACAP | SACNASP  
Full Accreditation with the Services SETA #2536

# TRUST

THE NAME YOU KNOW

Offering Over 175  
Courses in 19  
Different Subject  
Areas



**B-BEE COMPLIANT**

and we are an  
Empowering Supplier



**EARLY BIRD SPECIALS**

Save up to R2000 when  
you book & pay early!

## ONLINE, ONSITE & PUBLIC OPTIONS

**TRAINING SOLUTIONS**

Designed - Developed- Delivered  
JUST FOR YOU!

### 12 MONTHS

**POST-COURSE SUPPORT**

**ABSOLUTELY FREE!**

### 3 MONTHS ACCESS

**TO OUR WEBINAR LIBRARY**

**ABSOLUTELY FREE!**

Tel: +27 (0) 11 447 7470 | Email: [info@alusani.co.za](mailto:info@alusani.co.za) | Web: [www.alusani.co.za](http://www.alusani.co.za)



### TOP CLIENTS AND TOP COURSES

Among other clients, Anglo Platinum, the Gauteng Department of Infrastructure and Development, the Department of Water and Sanitation and the West Rand Municipality have sent employees and candidates to the training centre to learn plumbing skills.

The company's bricklaying courses also remain in very high demand. This is considering that it is a skill that can be learnt in a very short period and can be deployed on both private and public sector contracts. A low capital outlay for tools and equipment also makes bricklaying an ideal skill for the self-employed.

Moreover, Tjeka Training Matters has seen a marked increase in the number of people who want to learn carpentry skills. This competency can be deployed in the manufacture and erection of roof trusses, installation of conventional home ceilings, cornices and skirtings, as well as for hanging doors. People with the competency may also be able to secure employment on many of government's social housing projects that are being rolled out by state as part of its strategy to use infrastructure development to stimulate the economy.

The company has trained numerous people in the field for, among others, Hilti, Basil Read, Westrand Youth Development and the Department of Infrastructure and Development.

Tjeka Training Matters' portable skills solution in various trades is also a very popular for quickly developing the capabilities of people to find a job or become self-employed in the building and civil-engineering construction industries. The services that the company provided to Uitkomst Colliery still stands out as stellar example of its portable skills offering.



*The facility focuses on equipping people with the skills they need to earn a living in the building and civil-engineering construction industries*

Tjeka Training Matters also remains proud of the many shutter, concrete and reinforcing hands it has trained at the centre for WBHO, complementing its quality training in scaffolding erection and inspection.

### TRAINING IN THE FIELD

The company also continues to build on its solid working relationship with many leading participants in the road construction industry, such as Hillary Construction. Training in the field includes road construction, pothole repairs and paving, as well as the installation of precast-concrete kerbs, guardrails and Gabion baskets.

This is in addition to the services that the facility has provided to other leading participants in the South African construction industry. For example, it has trained tilers for Italtile and completed Hot Water Solar Skills training programmes on behalf of Women in Oil and Energy SA.

"Government has embarked on a massive public infrastructure investment drive to stimulate the economy and create jobs amid the turmoil of the COVID-19 virus. This follows a protracted period of hiatus in the South African construction sector that also had a notable negative impact on the ability of companies to train. It is encouraging to note the emphasis that has again been placed on training since government first announced its large public works programme," Toua concludes. ■

- Bonding Agents
- Chemical Anchors
- Concrete Bonding
- Concrete Crack Repairs
- Concrete Release Agents
- Concrete Repair Mortars
- Curing Compounds
- Epoxy Adhesives
- Epoxy Grout
- Joint Sealants
- Non Shrink Grouts
- Pre Cast Repairs
- Water Proofing

# CREATIVE CONCRETE SOLUTIONS

... WHEN QUALITY MATTERS!





CELEBRATING  
**20**  
YEARS  
OF TRAINING  
EXPERTISE

Developing a skilled and  
productive workforce for the  
Construction Industry  
throughout Southern Africa



**WHERE TRAINING MATTERS**

**GAUTENG | MPUMALANGA | LIMPOPO | NORTH WEST | FREE STATE**

Tel: 011 665 2777 Email: [frans@tjeka.co.za](mailto:frans@tjeka.co.za)

**WESTERN & NORTHERN CAPE** Tel: 021 976 8057 Email: [gawie@tjeka.co.za](mailto:gawie@tjeka.co.za)

**EASTERN CAPE** Tel: 060 997 5720 Email: [siyabonga@tjeka.co.za](mailto:siyabonga@tjeka.co.za)

**MIDVAAL** Tel: 016 366 0443 email: [kobus@tjeka.co.za](mailto:kobus@tjeka.co.za)

**KWA-ZULU NATAL** Tel: 082 457 0427 Email: [kobus@tjeka.co.za](mailto:kobus@tjeka.co.za)

**TJEKA**



# Accelerating Women in Transport

**Lafarge South Africa and Volvo Trucks South Africa have joined forces with other stakeholders to launch the 'AccelerateHer' initiative to accelerate women-owned truck operations in the country.**



**T**en women from KwaZulu-Natal will be selected for the pilot phase of the project, with the intention to replicate and grow it in other areas of operation throughout the country in phases. This ground-breaking initiative is aimed at increasing the number of female owner-drivers rendering a service to Lafarge operations in the area.

The successful applicants will receive intensive three-year training through the Commercial Transport Academy (CTA) as part of Volvo Trucks' Iron Women heavy commercial driver training programme. The Iron Women programme, which has been running since 2019, will teach the participants how to operate trucks safely, profitably, and efficiently, enabling them to ultimately receive their commercial driver qualification.

The participants will also undergo intensive business acumen training to empower them as owner-drivers, with a focus on aspects like technology, finance, entrepreneurship, business and road transport management, as well as labour legislation and HR practices. They will also be professionally mentored throughout the programme to ensure that they have every chance of success once they gain their qualifications.

Once qualified, the new female owner-drivers will be incorporated in the Lafarge KZN operations as active operators.

"We believe that given the correct resources and support, these women-owned transport businesses have the potential to flourish and make a real change in the lives of the participants, their families and their communities," said Noriko Solomon, Aggregates and ReadyMix Director from Lafarge. Moreover, the Lafarge Procurement Director, Kervin Ali added, "We understand that this project is another step towards economic inclusion; building accessible, and sustainable communities for the future."

The Volvo trucks will be financed by Volvo Financial Services.

"We are excited about the new doors that will open for women in transport because of this joint initiative with Lafarge South Africa," said Marcus Hörberg, Vice President of Volvo Group Southern Africa. "As a big supporter of the difference women can make in the industry, we are very proud and humbled that the Volvo Trucks Iron Women project has been able to develop and grow and make such a lasting impact in many people's lives.

Looking to the future, both companies are looking to involve more stakeholders, including provincial and national government, in order to expand the reach and impact of the programme. ■

**AFRICAN  
CONSTRUCTION  
EXPO**



**TOTALLY  
CONCRETE  
EXPO**



7 - 9 JUNE 2022 | GALLAGHER CONVENTION CENTRE

## CONNECTING THE CONSTRUCTION INDUSTRY IN SOUTHERN AFRICA



### ACCELERATE YOUR BUSINESS BY PARTICIPATING IN 2022:



Meet industry buyers and distributors



Gain access to latest project updates



Access to alternative market opportunities



Access to credible and affordable training

**BOOK YOUR SPACE! Get in touch to get a tailored exhibiting or sponsorship package to ensure that you achieve the maximum benefits from the expo!**

Contact Kenneth Masvikeni T: +27 21 700 5509 E: [KennethMasvikeni@dmgevents.com](mailto:KennethMasvikeni@dmgevents.com)

# Changing behavior for everyone's safety

By Rhys Evans, MD at ALCO-Safe



Rhys Evans

**D**espite concern from South African civil society groups, businesses and legal experts, the Department of Transport intends to introduce a zero-tolerance drunk driving regulation in the upcoming National Road Traffic Amendment Bill. In implementing a total prohibition on the consumption of alcohol by all drivers on South African roads, public interest groups believe that the effect of this provision could be potentially harmful,

arguing that the change is unlikely to reduce fatalities, but could instead criminalise the innocent. The main goal of the new law is to promote road safety and reduce alcohol related accidents. ALCO-Safe supports this idea entirely. However, it must be pointed out that what we need to deter unsafe driving behaviour isn't only stricter laws, but rather enhanced application of the rules and visible enforcement.

## MORE THAN LEGISLATIVE CHANGE NEEDED

By deleting any reference to alcohol content in the blood or breath specimen, the Amendment Bill seeks a total prohibition on alcohol consumption for all drivers. The need for change is obvious when considering drunk driving incidents cost the economy an estimated R18.2 billion annually and account for 27.1% of fatal crashes on local roads. However, it is worth noting that South Africa's laws on drinking and driving are already strict and in line with worldwide best practices. This zero-tolerance amendment, combined with the new demerit system for drivers under the Administrative Adjudication of Road Traffic Offences (AARTO), could see motorists penalised with up to 6 demerit points for a positive breathalyser result. After 15 demerit points, their license will be suspended for three months for every point over the threshold, which could severely impact the driver's livelihood during the suspension period.

## IN DEPTH COMPETENCY TRAINING AND CERTIFICATION IS ESSENTIAL

While the rationale for reducing the permissible blood alcohol level to 0% is understandable, the enforcement thereof becomes problematic if the officers entrusted with enforcing the new law have not undergone extensive training. The training must include in-depth information on alcohol in the body, how it absorbs into the body and how it is removed from the body. Another important factor that officers need to understand is what substances contain alcohol that could potentially lead to a mouth alcohol positive test rather than

a blood alcohol positive test. Alcohol coming from the mouth is not indicative of intoxication. Therefore, it's important for those enforcing the new laws to properly understand the difference between alcohol coming from a person's mouth and alcohol coming from the blood in a person's lungs. A motorist tested at a roadblock could yield a false positive result unwittingly due to certain cough medicines, toothpastes or food products that contain trace amounts of alcohol if they are tested by untrained officials. Untrained officers are less likely to understand the laws and why they are in place. They are most likely going to be less confident in what they are doing, and therefore more likely to be convinced to take bribes rather than follow the correct procedures.

## ACCURATE, CONSISTENT ENFORCEMENT

There is room to argue that we should rather analyse why the current system is failing and address those problems before passing a new law that will be hampered by the same problems as the old laws and possibly new problems as well. We don't necessarily need harsher laws to reduce dangerous driving behaviour. Instead, we need to increase the effectiveness of enforcement. This involves measures such as 24/7 traffic policing and testing motorists by means of regular roadblocks, all year round, not just during the festive season. Active monitoring of the officers conducting the testing is needed to make sure they are not taking bribes is of utmost importance. It doesn't matter if you have a zero-alcohol limit if the officers trusted to enforce the limit would rather take a bribe. The legal level then becomes completely irrelevant. With a zero-level alcohol tolerance, bribery becomes so much easier and enticing for officers. When it comes to testing





motorists for alcohol in a roadblock, or after an accident, breathalyser tests deliver accurate results much faster than blood tests. Because the breathalyser tests the air that comes from arterial blood in the lungs which supplies the brain, it is a good indication of the blood alcohol concentration currently affecting that person's brain, showing how intoxicated that person might be.

Essentially, the letter of the law should not be overlooked in pursuit of an outcome that could be more effectively achieved through application of the law itself. The threat of punishment alone is insufficient to deter irresponsible road usage and getting motorists to think twice before drinking and driving will necessitate visible enforcement, proper testing and consistent policing in order to be properly effective. ■

## Creating safe workspaces

**H**ow do organisations provide a safe workplace? Keeping intoxicated employees out of the workplace requires clear anti-intoxication policies coupled with strict enforcement through employee testing. For alcohol, breathalysers are the most effective means of testing for intoxication and for substance abuse, saliva testing can provide immediate results detecting recent consumption effective within minutes after the use of drugs. Saliva testing is seen as less intrusive than urine testing and also more effective at determining recent consumption. Furthermore, the use of an oral swab to wipe the inside of the cheek means there are fewer privacy issues with this testing method, compared to urine collection.

Most importantly, however, is how you engage your staff with your policy. In order to create safety, staff need empathy and the knowledge that this is an inclusive, non-threatening process. Staff cannot hear enough about how your policies, how confidentiality works, and the options available to those seeking help. The cost helping a teammate get better is always less than replacement, and the ripple effect of trust and buy-in around help also opens many doorways for all concerned.

### PAY ATTENTION TO THE UNDERLYING PROBLEM

Strict enforcement of anti-intoxication policies in the workplace should be counterbalanced by measures that seek to identify and address the underlying issue of substance abuse. This is particularly important right now given the collective mental fragility of our younger population, as draconian implementation of substance testing and disciplinary action will only cause employees to be more devious in their attempts to conceal

their substance abuse problem. Employee Assistance Programs (EAP) in the workplace can be an effective means for individuals to come forward and admit to substance dependency and ask for help in dealing with their problem, without fear of disciplinary backlash. The specifics of each EAP initiative will vary from organisation to organisation - some assist employees by sponsoring their rehabilitation, but at the very least the individual should be afforded paid sick leave, making it possible for them to seek treatment. In addition to such a confidential facility, organisations need to prioritise the mental wellbeing of their workers, while educating and creating awareness around the dangers of substance abuse and the available options for treatment and recovery.

### EVEN TOUGHER TIMES AHEAD

As difficult as it may be to face, life is going to get a lot harder for South Africans as we continue to deal with the impact of a pandemic that shows no signs of disappearing. Access to state-provided mental health support is extremely limited in SA, which means that businesses will be required to step up during these tough times and prioritise the wellbeing of their workers. This is important not only from an occupational health and safety perspective, but from a business continuity perspective - people are the most important asset in any business, and right now those assets need additional support and assistance. ■

Contact: Rhys Evans, Managing Director of ALCO-Safe  
Tel: +27 (0)12 343 8114 | rhys@alcosafe.co.za



# THE WORLDWIDE PARTNER IN CONSTRUCTION



**Tile Adhesives  
& Grouts**



**Concrete  
Repair**



**Products  
for Resilient,  
LVT & Textile  
Materials**



**Waterproofing**



**Resin  
Flooring**



**Sealants**



**Admixtures for  
Concrete**



**Cement  
Additives**



**Sports  
Flooring  
Solutions**



**Products for  
Underground  
Construction**

MAPEI is a trusted manufacturer and supplier of the highest quality building materials to the construction sector. The MAPEI Group consists of 90 subsidiaries with 83 plants in five continents.

Our team is committed to providing pre-sales advice, technical on-site support and training and after-sales support from the conception of your project to the completion.

With over 80 years in the construction industry, MAPEI is the worldwide partner in construction offering solutions from the foundation to the roof!

**REBUILDING SOUTHERN AFRICA WITH MAPEI.**

Learn more at [mapei.co.za](http://mapei.co.za)  
Tel: + 27 11 552 8476  
Email: [info@mapei.co.za](mailto:info@mapei.co.za)



 **MAPEI**  
ADHESIVES • SEALANTS • CHEMICAL PRODUCTS FOR BUILDING





**YOUR  
PRECAST  
CONCRETE  
SPECIALIST**

**PRODUCTS**

Storm Water  
Electrical  
Markers  
Water Reticulation  
Outdoor & Building  
Polymer Products  
Mining Solutions  
Kerb Inlet & Road Products  
Custom Products

**SERVICES**

Moulds  
Drawings



**TWINSTAR  
PRECAST**



**With us everything is cast in  
concrete - but solving stormwater  
problems with it is our forte!**

Address: Unit 21, Hunky Dory Business Park,  
9 Goedehoop Avenue (M57), Olifantsfontein

Telephone: (012) 670 9083 E-mail: [info@twinstar.co.za](mailto:info@twinstar.co.za)

