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Continuous pursuit of higher levels of performance

under construction at SASOL

VOLUME 17 | MAY 2017





From the **CEO**

The contracting environment continues to be competitive with profit margins remaining under pressure. This is self-evident from our results for the financial year ended 28 February 2017, where our contract revenue decreased by R611 million to R9,1 billion compared to the previous period (Feb 2016: R9,7 billion) and the group's operating profit decreased from R392 million in the previous year to a loss of R106 million in the current year.

However, certain key aspects contributing to the decrease in earnings can be summarised as follows:

- The recording of a once-off charge of R139 million relating to the Voluntary Rebuild Programme (VRP) concluded with the South African Government late last year;
- The goodwill, relating to the Cycad Pipelines Proprietary Limited acquisition, of R155 million being written off; and
- In line with Group policy, land and buildings are independently valued every five years. Based upon these latest valuations, R15 million has been written off during the period.

If the effects of these extraordinary items are excluded, the operating profit for the year would have been R202 million.

Our order book is currently R14,0 billion, with approximately 32 per cent thereof stemming from beyond South Africa's borders.

Project Highlights

Our cross-border operations are participating in a number of highprofile projects including the construction of an 85-km stretch of road (including a 95-metre span bridge) for the Zambian Road Development Agency in the Western Province of Zambia (p 30); the construction of the multi-purpose Kitwe Freedom Park development (p44), also in Zambia; as well as the construction of the Matola Mall in Mozambique (p 43) and the new Swaziland Revenue Authority (SRA) Headquarters in Ezulwini, Swaziland (p 45). In addition, Stefanutti Stocks Coastal has secured some cross-border marine projects in Kenya and Guinea (pp 32-33).

A number of divisions across the group are participating in mining infrastructure construction projects, including the Roads & Earthworks and the Civils division, working together on the Foskor Selati Tailings Dam's decant tower and pipeline project (p 11). We are also for the first time participating in the civil construction of renewable energy projects, including constructing concrete wind towers for a wind farm in the Eastern Cape (p20).

The Oil & Gas division is constructing the world's largest Air Separation Unit (ASU) for its client Air Liquide at Sasol in Secunda (p 15). At the end of April 2017 more than 1 000 000 man-hours had been worked without any lost-time incidents.

Our Civils division's concrete rehabilitation team is undertaking a number of complex repair projects (pp 17-18), including the repair of cooling towers for Sasol Group Technologies. It also boasts an exceptional safety record. It is interesting to note that this rehabilitation project has approximately the same contract value as the greenfield contract the group undertook in 1996 for the construction of the three cooling towers at the Majuba Power Station (p 19).

Our Coastal Building division continues to do well within the industrial facilities arena and is currently constructing a new logistics building for Mercedes Benz South Africa in East London (p 48). The recently merged Building Division's housing market portfolio includes the Flamwood Social Housing Development, located in Klerksdorp, which is currently South Africa's largest Community Residential Unit (CRU) Development under construction (p46).

Safety

Regretfully we recorded a fatality on 17 March 2017, and on behalf of the group I would like to express our deep condolences to the family, friends and colleagues of Mr Mapolanka Joel Moremi.

Management and staff across the group remain committed to enhancing our health and safety policies and procedures. We strive to create a workplace environment where we are constantly improving our safety performance.

The group's Lost Time Injury Frequency Rate (LTIFR) at February 2017 was 0,10 (Feb 2016: 0,10) and the Recordable Case Rate (RCR) was 0,70 (Feb 2016: 0,59).

Voluntary Rebuild Programme (VRP)

One of the VRP's main objectives is to transform the South African construction industry by developing black-owned emerging enterprises into meaningful competitors, over a period of seven years. We have thus far identified two emerging enterprises - TN Molefe Construction (Pty) Ltd and Axsys Projects (Pty) Ltd, with whom we will partner, under this programme, and they are introduced on pages 4 and 5. We are looking forward to strengthening our relationships and playing our part in their future growth and sustainability.

Our people

Last year marked two decades of my working for the company, and I remain as passionate about this group as on the first day I reported to work.

This year, a number of employees celebrated long service milestones with us, including some with forty years of service! Having energised and engaged employees is fundamental to our success as a company, and we appreciate the commitment and dedication of every single employee of Stefanutti Stocks.

I would also like to extend my appreciation to the board and our management for their continued commitment, as well as our gratitude to our all-important customers, suppliers, service providers and shareholders for their ongoing support.







From the CEO



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Senior Appointments & Promotions

Building

- Mauro Donato has been appointed as managing director for Stefanutti Stocks Building Western Cape with effect from 1 March 2017.
- John Dorning has been appointed as managing director for Stefanutti Stocks Building KwaZulu Natal with effect from 1 March 2017.

Mechanical & Electrical

Kobus Hattingh has been appointed as contracts director within the Electrical & Instrumentation division, with effect from 1 March 2017.

Roads, Pipelines & Mining Services (RPM)

Thandiwe Hlatshwayo has been appointed as alternate director for Stefanutti Stocks Swaziland and Stefanutti Stocks Construction Swaziland, with effect from 3 April 2017.

Structures

Chris Tshivhidzo has been appointed as alternate contracts director in the Civils division, with effect from 1 March 2017.





Stefanutti Stocks partners with two

black-owned emerging construction enterprises

Source: Charles Wright, Stefanutti Stocks enterprise development director

The key objective of the Voluntary Rebuild Programme (VRP) is to transform the South African construction industry by developing a number of black-owned emerging enterprises into meaningful competitors. The VRP partner programme will see Stefanutti Stocks, over a period of seven years, assist in developing the skills, systems and resources of its VRP construction partners, so that they can be rated as CIDB Level 9 (CE or GB category) companies. By 2024 these companies must achieve a cumulative combined annual revenue that is equal to at least 25 per cent of Stefanutti Stocks' annual South African Civil Engineering and Building turnover.

The industry's relatively low profit margin / high turnover business model represents a challenge to enterprise development within the construction sector, as this is not an easily achievable model for smaller or start-up entities. "Smaller companies depend on sub-contract work from the larger construction companies, but cannot be sustained at the profit margins required to win tenders," says Charles Wright, enterprise development director for Stefanutti Stocks. "In order to be effective in assisting emerging contractors to be sustainable in the long term, as well as meeting VRP turnover requirements, we will focus on establishing strong working relationships with our VRP partners and working jointly on projects in South Africa."

As required by the VRP, Stefanutti Stocks will develop beneficiaries, and has thus far identified two emerging enterprises with whom it will partner. These are Axsys Projects (Pty) Ltd, previously a strategic enterprise development partner to the Stefanutti Stocks Structures business unit, and TN Molefe Construction (Pty) Ltd. The two companies are not in direct competition with one another, with each company mainly focusing on different operational sectors.

Axsys Projects (Pty) Ltd

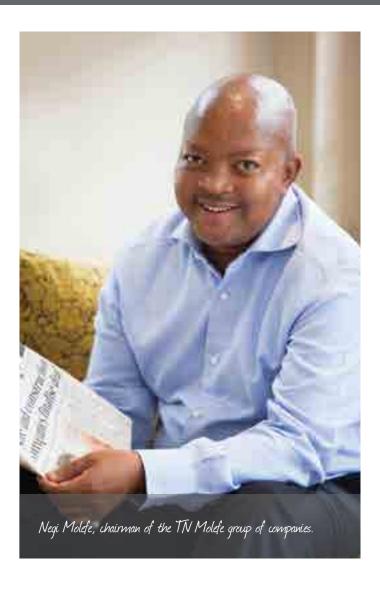
Axsys Projects is a black-women owned, B-BBEE Level 1, CIDB 6CE construction company that undertakes structural, civils, roads, earthworks, building and marine infrastructure construction projects across South Africa. It was founded in October 2011 by successful property development entrepreneur and corporate executive Halga Ninow-Cohen. Her vision was to establish a fully-fledged black female owned construction company that could meaningfully contribute to infrastructure development across South Africa.

The relationship between the two companies began in 2012 when Axsys Projects joined Stefanutti Stocks' enterprise development programme while subcontracting to the company on a pipeline project. Following the completion of this contract, Axsys subcontracted to Stefanutti Stocks Coastal on the North Eastern Waste Water Treatment Works (WWTW) project. This project saw it take on more responsibility and expand its skills set to include concrete work, the construction of three sludge lagoons (the size of football fields), pipework and building work.

The partnership began to bear real fruit when early in 2014 a joint venture between Stefanutti Stocks Marine and Axys secured the R760-million Transnet Capital Projects contract to reconstruct the sheet-pile quay walls at six berths on Maydon Wharf in Durban Harbour. Here Axsys Projects stepped out of the subcontractor role, and as a 26 per cent shareholder in the joint venture, contributed to the resources utilised on the project.

In total the two companies have tendered on eight projects in joint venture to date. In addition to the Maydon Wharf project, a further three projects have been awarded to joint ventures between the two including the civil construction of the Zuikerbosch Sedimentation Plant, and two building projects for Nedbank and Mercedes Benz South Africa.







TN Molefe Construction (Pty) Ltd

TN Molefe Construction (Pty) Ltd is a B-BBEE Level 1, CIDB 7CE PE-graded construction company that undertakes infrastructure and building projects. It is a member of the TN Molefe group of companies that was established by entrepreneur and professional engineering technologist Negi Molefe in September 2003. A key objective of the group has been creating employment and training opportunities within the construction sector for the South African youth, while promoting black economic empowerment at all times.

Anne Ndaba, who manages the operations of TN Molefe Construction (TNMC), originally joined the TN Molefe group in 2004 as a trainee. She worked her way up through the company gaining operational and project management experience on a broad spectrum of projects including contracts for water reticulation, roads and stormwater construction, road rehabilitation and building renovations.

TNMC's service offering to clients includes:

- earthworks,
- construction of pavement, roads and stormwater facilities,
- rehabilitation / maintenance of pavement, roads stormwater facilities.
- construction of bulk and internal sewer networks.
- construction of bulk and internal water networks.
- building construction (including rehabilitation contracts, services and networks),
- plant hire, and
- in-house engineering capabilities that enable it to offer its clients turnkey solutions.

Each VRP partner will have a champion within its sponsor business unit. The champions (the respective business units' managing directors) will promote the developing entity within Stefanutti Stocks and identify potential synergies on tenders and future prospects across the group. Each partner may have several mentors who will assist with the transfer of knowledge and skills in their specific field, thus enabling a broad and comprehensive development of the VRP partner employees.

The multiple benefits to VRP partners include having access to projects that are outside their existing CIDB tender range as well as involvement in joint ventures that will enable an improved CIDB grading as well as real skills transfer, access to established industry best practices and operational experience. "The intention is to create a more continuous workflow for our VRP partners, that in addition to a significantly increased turn over will provide regular income to build resources, invest in capital equipment and ensure longterm sustainability," concludes Wright.

New strategic mining alliance

offers sector a turn-key construction and operating solution

In early February 2017 Redpath Mining (South Africa) and multidisciplinary construction group Stefanutti Stocks announced that they had entered into an alliance agreement. The two companies, that offer different yet complementary capabilities and services to the mining sector, believe the alliance will maximise benefits to existing and prospective clients, by giving them access to a complete turnkey mining solution.

Redpath Mining's service offering includes shaft sinking, mine development, contract mining, raiseboring, underground construction, engineering and technical services, as well as speciality services focusing on underground infrastructure.

Stefanutti Stocks's construction capabilities encompass all aspects of above-ground mining infrastructure construction including earthworks, civil construction, buildings, water treatment plants, pipelines, SMEIP (structural, mechanical, electrical, instrumentation and piping) and concrete rehabilitation. Its services to the sector also include contract mining, material handling and tailings management.

"Our complementary cultures for seeking innovative solutions, lay a good foundation for the success of this strategic mining alliance, which we believe will grow from strength to strength," says Redpath Mining (South Africa) managing director Ockert Douglas.

Both companies boast decades of mining sector experience in their respective fields of expertise, and their combined capabilities result in a powerful alliance that offers clients a comprehensive turnkey solution to any nature of mining project - be it a remote greenfield mine development or significant expansion work at an established mine.

Further benefits to mining clients include a single role player taking responsibility for an entire project, while all specialist skills sets (from design through to construction and operation) provided by Stefanutti Stocks and Redpath Mining, can be fully utilised. This single point of contact simplifies the client interface and streamlines the project management process with the potential to be more cost effective.

"We are excited to be part of this alliance, as this has the potential to be a great asset to the Southern African mining industry, and we are looking forward to putting our combined forces into play," says Stefanutti Stocks chief executive officer Willie Meyburgh.



Mining fund partnership

to provide lowest risk vehicle for investing in junior mining companies

The JSS Empowerment Mining Fund, established by boutique financial consulting firm Jaltech and Stefanutti Stocks, was launched at the Mining Indaba in February 2017. Through extensive risk mitigation and tax benefits, this Section 12J fund offers attractive investment opportunities to investors. Its target capital is R1 billion.

Junior mining companies are often considered too small for traditional private equity or debt funding and hence struggle to raise capital. The JSS Empowerment Mining Fund has been created to fill this funding void and will operate in a unique niche, providing investment of between R30 million and R500 million to qualifying South African junior miners. The fund will support junior miners in respect of operational expertise and financial stability.

Construction and mining services contractor Stefanutti Stocks will provide contract mining, material handling services and mine infrastructure design and construction if required, as well as appropriate on-demand guarantees against mining production volumes and processing quality. This will vastly reduce the operating and financial risks traditionally associated with junior mining operations. Stefanutti Stocks's particular expertise is in open cast mining operations (from mine design through to operations), however its recent alliance with Redpath Mining (South Africa) will also grant access to underground mining expertise if necessary.

The Fund's board and investment committee members bring executive level and governance experience gained in leading (often listed) companies from various industries to the table. Board members include Chairman Mpho Makwana and directors Derrick Hyde, Mano Moodley, Gaurav Nair and Zukie Siyotula.

Potential investments will be identified and considered by the fund's investment committee, whose members boast a broad range of relevant experience. This includes expertise in geology, mining engineering, mining operations across the whole value chain, mining investments and development, mining finance and auditing, mining contracting, and corporate and project finance. The investment committee is chaired by Zukie Siyotula and its members are Dr. John Hancox, Vinay Somera, Derrick Hyde, Frik Venter and Nthabi Ledwaba.

Further details on the fund can be found on www.jssminingfund.co.za



investment backed by industry know-how





In the November 2016 issue of the Benchmark we reported on the lead up to, and the award of the Silver Lake Coal Open Pit Mining Project in Ermelo, Mpumalanga. Mining operations are now in full force, and we are pleased to report that the project is performing well.

This project is a result of our one-stop-shop offering and has travelled a long road from our first engagement with the Silver Lake management team, through to being awarded the project in 2016. We encountered many bumps along the way, but were rewarded when Stefanutti Stocks Mining Services (SSMS) secured an eight-year project, with the possibility of a project extension should it be possible to increase the coal reserve by further exploration drilling.

After signing the commercial agreement, we commenced with site establishment and mobilisation activities in June 2016. This involved, amongst other activities, the construction of offices and workshops, recruitment, training and the appointment of all staff and operators. We procured and transported mining equipment, constructed the haul roads and lay-down areas and prepared the waste rock dump facilities, ROM stockpile area, and so forth. The actual mining operations commenced in August 2016 and the project has been delivering according to expectations.

The Silver Lake project allows for the mining of two different mine reserves, that is Uitgevallen and Leliefontein, each of which has its own unique raw coal quality profile. These reserves are about 12km apart, and lie approximately 5km outside Ermelo. It was important to mine these two reserves simultaneously to produce the required coal product qualities required under the coal sales agreement.

Unfortunately, it was not possible to execute the initial plan as there was a delay in securing the surface rights of the Leliefontein reserve. This required some clever thinking by our planning and management teams, and after reconfiguring the Uitgevallen Mine schedule, we doubled the production quantities, making it possible to produce the required coal product with the correct qualities.

Our client has since secured the Leliefontein surface rights, and site establishment and mobilisation activities, including mobilisation of an additional mining fleet consisting of Volvo equipment that began in mid-April 2017.

When we started mining at Uitgevallen in August 2016 we were able to appoint almost our entire management team from two of our openpit mining contracts, namely the Kangala (Universal Mine) and Foskor projects. The operators and support staff were mostly locally recruited from the Ermelo Municipal area. This was done with the assistance and





cooperation of the Msukaligwa community representatives, and we currently employ 85 per cent of our staff from this area. The new team, albeit it a mix of very experienced individuals and relative newcomers to the industry, has bonded exceedingly well in a short period and we expect great things from them in future.

The entire team has performed very well and we have implemented a process whereby everybody takes responsibility for his or her own tools and machinery. This extends to utilising it correctly and thus contributing to the contract. Every single person on site plays an equally important role in contributing to the positive attitude and atmosphere at the Silver Lake project.

What makes this project even more exciting for us is that this is the first project where we have assisted a junior mining company (Silver









Lake) through internal funding of our own initial costs, until such time where they could start selling coal, normalise its cash flow and pay back our initial funding. To protect our exposure we agreed on mitigation measures with our client and the coal off-taker, and implemented controls and management systems, in close relationship with Silver Lake, to manage the certificates and cash flow. These, together with good communication and cooperation by all parties, resulted in the negative cash flow period performing much better than planned.

On a lighter note, the staff on site have started a successful soccer team, which is doing well against the local competition. We believe that with an eight-year contract period we may even produce some future Bafana stars!

Our production manager, Johan Olwage, donated some Blesbok to the mine that had to relocate with him when he moved to site from his smallholding on the East Rand. The mine owners made a piece of land available to the animals, and they have adapted well to the mining environment. We have since adopted these animals as our mine mascots, who much to our amazement are not affected in the slightest by the blasting operations on site.

It is always good when one can report that a project is exceeding expectations, and we are really proud of this contract, that is producing as planned, on time and on budget.

This project was fully designed, planned, scheduled, constructed, operated and initially funded by Stefanutti Stocks Mining Services. We have over the last three years developed an excellent relationship with the mines owners, and this project proves that when a client/ contractor relationship is healthy, the project will benefit.

On behalf of Stefanutti Stocks Mining Services we would like thank Mr Josiah Mashigo and Mr Tommy Crowe for trusting us with their project, for their invaluable contribution in helping to make it such a success, as well as making it a project that can serve as a model for us, and indeed others.

Well done to the team who is making this happen - long may you continue and grow from strength-to-strength!

Freddie, Joel and Zwelakhe

Captions:

- A moment of celebration the first coal on the ground at Uitgevallen!
- The equipment wash-bay, complete with water recycling unit.
- The mine offices were provided by our client, and were "Stefanutti-ised" with our strong branding.
- A hive of production activity at Ultgevallen four 87-ton excavators work in tandem with their associated dump trucks to strip waste material.
- Production activity continues with the fleet hard at work stripping waste material
- 6 Stripping of waste in the background, while coal drilling is undertaken in the foreground.









Material Handling division trials bottom dumper at

Exxaro's Dorstfontein **East mine**

Source: Clifford Turner, Stefanutti Stocks Mining Services Material Handling contracts manager

Stefanutti Stocks Mining Services' Material Handling division manages and operates the co-disposal facilities at three of Exxaro Coal Central's mines - Dorstfontein East, Dorstfontein West and Forzando North Coal Mine.

Its operations here involve the placement and compaction of discard on the discard dump as per a construction plan that is provided by the respective mines. The discard is compacted to prevent spontaneous combustion.

When the Material Handling division identified the bottom dumper as a viable alternative to an articulated dump truck (ADT) or a tipper truck, it purchased two Tri-Axle Bottom Dumper Trailers (Belly Dumpers) to haul discard from the processing plant's discard bin to the discard dump. The trailer used is a Bell B25D, with 170Kw and 810nm torque.

One of these bottom dumper units is currently on trial at the Dorstfontein East Mine, and has thus far performed satisfactorily in the existing conditions. The unit on trial was confirmed, on a weigh-bridge, to be capable of carrying a load of 38 tons of discard.

"The main advantages of these units over the traditional tipper truck is that the bottom dumper spreads the discard in layers, which in turn simplifies the follow up operation of grading and compacting, thus resulting in a cost saving," says contracts manager Clifford Turner. "A further advantage is that the unit is capable of carrying a greater load per Kw than the ADT or tipper can, which is not only much more efficient, but also results in a further cost-saving."

To ensure that the benefit of this efficiency is rolled out across the Material Handling sites, where conditions are viable, the dumpers will over time replace the traditional tipper trucks currently used for hauling of discard.

"We are constantly looking for innovations and new methodologies that allow us to cut costs and offer our clients the most cost-effective solutions. while meeting their requirements," says Marco Pasquali, contracts director for the Material Handling division. "We are also of course always extremely pleased when the performance of these alternative methodologies provides such good results."

Caption:

The Tri-Axle Bottom Dumper leaves the Dorstfontein East processing plant's discard bin with a full load

Mine infrastructure construction underway for

Foskor's mining division

Sources: Pierre van Vuuren, Stefanutti Stocks Civils site agent Craig Bowles, Stefanutti Stocks Roads & Earthworks site agent

Stefanutti Stocks Civils and Stefanutti Stocks Roads & Earthworks are currently constructing mining infrastructure for Foskor's Phalaborwabased mining division. The Civils division is constructing a 61-metre high decant tower located on the edge of the existing Selati tailings dam. The decant tower will, by means of a gravity feed, return the tailings water back to the Foskor mining plant via a 740-metre long pipeline, that is being constructed by the Roads & Earthworks division.

These various construction projects that commenced in October 2016, see the Stefanutti Stocks divisions sharing company resources on this remote site, resulting in a considerable cost saving for the mine. A further two Stefanutti Stocks divisions are currently active at Foskor, with Stefanutti Stocks Contract Mining undertaking open-pit mining operations, and Stefanutti Stocks Tailings managing and operating the Selati tailings dam.

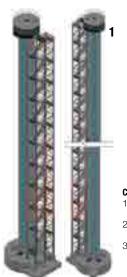
Stefanutti Stocks Civils

The mining infrastructure construction component includes:

- Construction and installation of a 20 000m³ coffer dam;
- Construction and installation of a 61-metre high concrete decant tower;
- Construction and installation of a 61-metre high steel staircase next to the decant tower;
- Construction and installation of all mechanical, instrumental and lightning protection on the decant tower; and
- Commissioning of the tower.

Prior to the digging out for the foundations commencing, an earth berm, to keep the construction area clear of water, was constructed about fifteen metres into the dam. By the end of March 2017 the foundation work had been completed, and the tower, including wing walls, had been built in situ to a height of 1.6 metres.

The actual slip-forming of the structure commenced on 20 April and will proceed from the 1.6-metre level, up to 61 metres. The control room will then be constructed at the top of the cross-shaped decant tower. The intersecting bars of the 61-metre high tower are 3.6 metres wide, with each 'arm' 1.8 metres long. "This unusual shape adds a complexity to the sliding," says site agent Pierre van Vuuren, "particularly with respect to maintaining the vertical plumbness of the structure."

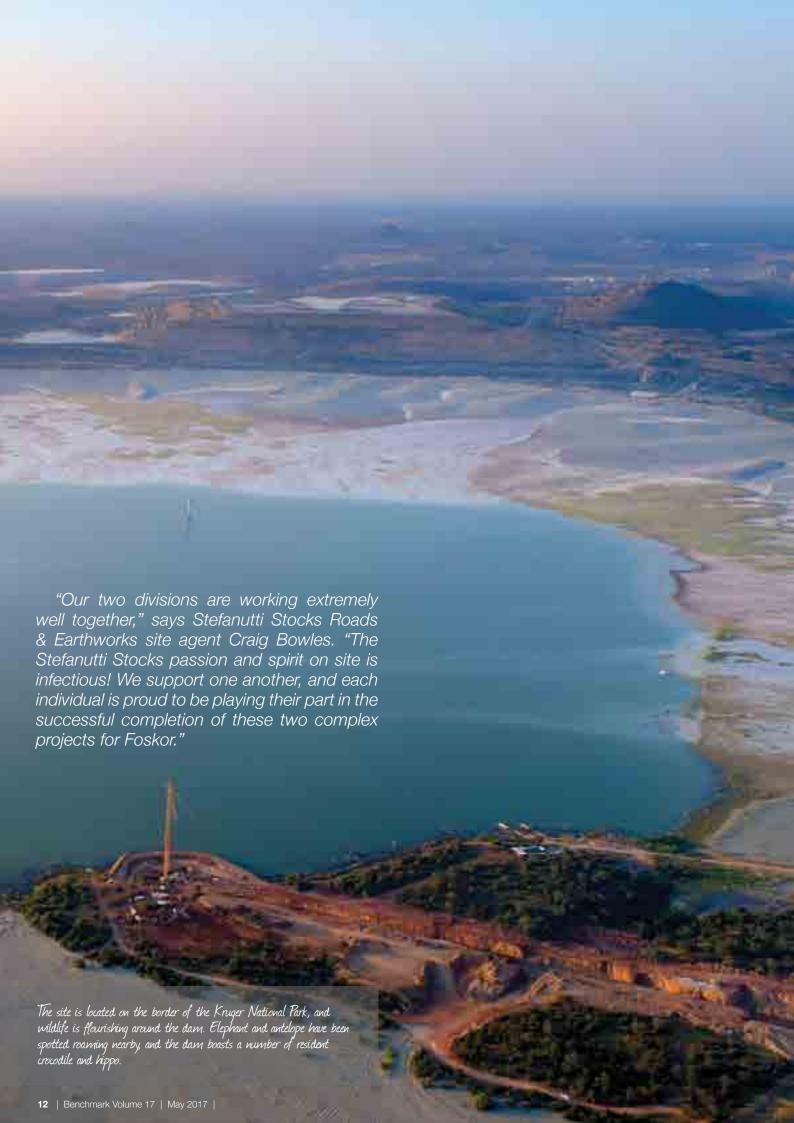




Captions

- . An isometric view of the decant tower (concrete and steel).
- A 3D drawing showing the shape of the Selati Tailings Dam decant tower.
- An aerial perspective of the project was taken during a blast and also shows the earth berm that was constructed about fifteen metres into the dam to keep the construction area clear of water.







Further highlights on the project include Civils employees Ayanda Fanie's permanent appointment as the site quantity surveyor; Olerile Senye completing an advanced driving course; George Tibana's promotion to a team leader (from a shutter hand to a charge hand); and, after completing his NQF Level 4, Roads and Earthworks employee Cyprian Nyawose was promoted to junior foreman.

"Our two divisions are working extremely well together," says site agent Craig Bowles. "The Stefanutti Stocks passion and spirit on site is infectious! We support one another, and each individual is proud to be playing their part in the successful completion of these two complex projects for Foskor."



Stefanutti Stocks Roads & Earthworks

The bulk earthworks and pipeline installation scope includes:

- Trench excavation of 215 000m³ in rock, 30-metres below natural ground level;
- Installation of a 740-metre long, 900mm diameter concrete encased pipeline;
- Impermeable backfill to trench;
- Reinstating of existing services; and
- Commissioning of the pipeline.

The 740-metre long trench excavation was completed in March 2017, and cuts through an outcrop on the side of the existing dam wall. This excavation had to allow for the gravity feed pipeline, which was continuously falling, in spite of the natural ground level increasing to a height of 30 metres. The project's target dates required that excavations run 24/7 until successfully completed. This meant that the excavation had to be drilled and blasted at least once a week.

The excavation design allowed for a working space of 10-metres on the floor of the trench, and about 80° (5v:1h) side profiles. The side profiles were constantly monitored for changes in the rock composition, and certain areas of the excavation had to be considerably widened to avoid failures and unsafe conditions.

The pipeline is progressing well and is scheduled to be complete by July 2017. Concrete is obtained by an external supplier, whilst testing is conducted in house at Stefanutti Stocks' on-site laboratory.

The strength of the team

"Our mantra on site is that proper planning prevents poor performance, and our team prides itself on planning ahead of time to prevent delays at critical times in the project," says Van Vuuren. "Our team members have also celebrated a number of achievements, including all permanently appointed staff passing the Foskor prescribed, three-hour closed book examination on the Mine Health and Safety Act."

Captions:

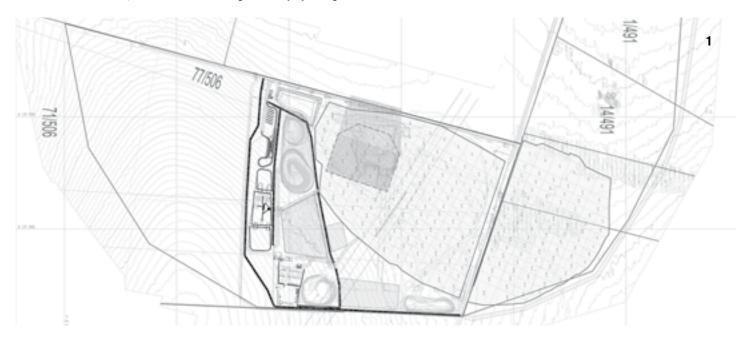
- The assembly of the access staircase for the decant tower.
- 5. Excavation operations at chainage 500, 15 metres below ground level.
- Construction operations of both divisions, with Selati Tailings Dam in the background.



Comprehensive Turnkey Solutions for Mining

sector become increasingly more popular

Source: Kamanth Ramlal, Stefanutti Stocks Mining Services project engineer



Stefanutti Stocks Technical Services forms part of a dynamic team of professionals within the Roads, Earthworks and Mining Services (RPM) business unit. "The convenience of the comprehensive turnkey mining solution that we offer is becoming an increasingly sought-after service," says Stefanutti Stocks Mining Services project engineer Kamanth Ramlal.

The strategy adopted by Stefanutti Stocks is to provide a unique, appropriate, one-stop, 'cradle-to-grave' solution that is tailored to each individual client's needs. Services include project feasibility, detail design, project management, construction services, operational services for the full period of the life of the mine, rehabilitation, mine closure as well as environmental rehabilitation.

"Our value-added service allows for the seamless flow of information between our technical, construction and operational divisions, ensuring that best practice and appropriate solutions are provided to our clients," explains Ramlal. "This operating model is more cost effective for clients and is a true reflection of Stefanutti Stocks's commitment to adapting



its work methodologies to accommodate South Africa's tough financial and commercial environment."

The Technical Services division is currently undertaking a range of interesting and diverse projects which include feasibility studies for existing and new mine developments as well as the design, development, monitoring and operations of tailing storage facilities.

One of its flagship mining infrastructure projects, the Hillside Loading Facility Project, will soon be in the construction phase. "We are utilising the Futran system at Hillside," explains Ramlal, "which is a new technology being implemented for the very first time in South Africa." This system transports coal, via cable-car skips, which deposit coal at the new railway siding for onward distribution to various parts of the country via Transnetowned trains. Technical Services involvement in the project includes the design, construction and commissioning of infrastructural requirements for the new railway siding which once completed will be operated by Stefanutti Stocks's Materials Handling department.

Other projects the Technical Services department is currently engaged in include:

- Revalidation and optimisation studies for new mine developments across the country;
- New platinum mine development in Steelpoort;
- Upgrade of an existing coal mine near Bronkhorstspruit;
- Pollution control dam construction at a mine in Ermelo;
- Extension to the life of a tailings storage facility in Namibia;
- Design of a pollution control dam, return water dam, new tailings storage facility and modifications to the existing TSF at Stibium Mine in Phalaborwa:
- Design of a coal discard facility in Delmas;
- Detailed design and future development studies for various tailings storage facilities operated by the company's Tailings department;
- Tailings storage facility reclamation project in Brits;
- Construction supervision for modifications to tailings storage facilities;
- New tailings storage facility in Zimbabwe.



"Stefanutti Stocks continues to evolve with the mining sector by providing exclusive tailor-made mining solutions to a broad spectrum of mining operations across Southern Africa," says Ramlal. "We are constantly looking for new technologies and methodologies to ensure that we provide our clients with the solution that best fits their overall requirements."

Captions:

- The general arrangement infrastructure drawing of the upgrading of the existing Makole Mine in Bronkhorstspruit.
- The construction of Bramber Tailing Storage Facility that forms part of the Barberton Mine Project.
- The Futran material/product transportation system will be used, for the first time in South Africa, at the Hillside Loading Facility project.

Oil & Gas division constructs world's largest

Air Separation Unit for Air Liquide

Source: Vince Olley, Stefanutti Stocks Mechanical & Electrical business unit managing director

"Once Air Liquide's new Air Separation Unit (ASU) train 17 for Sasol in Secunda is complete and operational, it will be the largest ASU in the world, boasting a total capacity of 5 000 tons of oxygen per day (tpd), which is equivalent to 5 800 tpd at sea-level," says Vince Olley, Stefanutti Stocks's Mechanical & Electrical business unit managing director.



Stefanutti Stocks is currently constructing this world-first, industrial gas production facility for Air Liquide. The project is on schedule for mechanical completion in July 2017, and set to be commissioned from August to October 2017. Air Liquide's contract to supply oxygen and nitrogen to Sasol commences from 1 December 2017.

"The ASU train 17 project marks a major milestone in the history of industrial gas production," says Olley. "In order to provide benchmark efficiencies, reliability and safety a number of state-of-the-art technologies are being implemented in the construction of this ASU."

Stefanutti Stocks's scope of work for the construction of the ASU train 17 includes:

- Installation of 1 500 tons of structural steel;
- Installation of 1 750 tons of mechanical equipment;
- Installation of 116 000 diameter inches of pipe fabrication;
- Erection of 240 tons of supports;
- Scaffolding;
- Insulation;
- Painting;
- Non-destructive testing (NDT); and
- Chemical cleaning.

The project has a number of unusual aspects, including the size of the piping, with the largest being 2.85 metres in diameter. The process lines will transfer pure oxygen and are thus a potential explosive or a fire risk. To ensure that all grease, oil, dirt and grit is removed the pipes and systems are chemically cleaned.

Large quantities of stainless steel piping have been installed in the 60-metre high cold box, which will house some very large equipment. To allow the piping installation to be undertaken, the cold box required scaffolding throughout so that the Oil & Gas team could access this very confined work space.

"The ASU design, due its size, poses a number of challenges with respect to transport, constructability and construction sequencing, including striking a balance between pre-fabrication of piping and components, access for maintenance and operability," says Olley.

In addition to the access challenges, the installation of the distillation columns, the world's largest air compressor and electric motor, and other major equipment required highly-skilled rigging activities. Perfect weather conditions were also a requirement for these challenging rigging activities and, on occasions, the lifts were delayed due to safety considerations.

One of the biggest challenges was to align and weld two 6-metre in diameter, stainless steel columns - K01 and K02, on top of one another at

a height of 30 metres. "We then had to place a further column weighing 160 tons on top of this 30-metre column," explains Olley. "These columns were held in place by a 750-ton crane, whilst the team aligned and welded the column, which once finally assembled stood 66-metres high."

The 60-metre high argon box was delivered in two pieces, which were lifted, aligned and attached to one another. Its casings were delivered already fully loaded with equipment and piping. The lower part, which stands 30-metres high weighs about 240 ton, while the upper part weighs around 306 ton. All the equipment installed had to be aligned perfectly in order for the Air Separation Unit process to function as designed.

The very large aluminium heat exchangers required approximately 5 000 diameter inches of on-site aluminium welding. "The sheer volume of welding that needed to be achieved within the construction scheduled required us to upgrade several of our core welding personnel, and Air Liquide recruited and mobilised an additional four expatriate welders," says Olley.

This is the third ASU that the Oil & Gas division's management team is constructing in Secunda. In the past ten years, the team has built ASU trains 15 and 16, both of which have a capacity of 3 500 tpd. The experience gained during their construction is proving to be a great asset to this project.

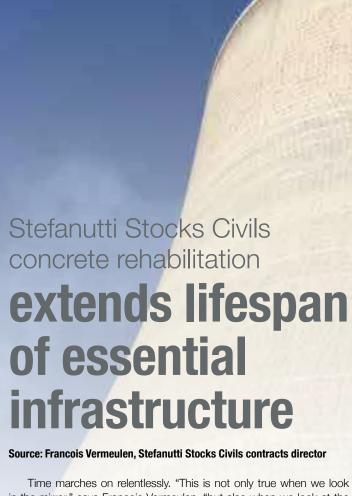
At the end of April 2017 more than 1 000 000 man-hours had been worked without any lost-time incidents.

captions:

- The ASU Cold Box.
- The world's largest Mac and Bac compressors being installed.
- A general view of the warm part of the plant.







Time marches on relentlessly. "This is not only true when we look in the mirror," says Francois Vermeulen, "but also when we look at the many complex and beautiful concrete structures we have built over the decades." Although concrete is built to last, to keep these assets in good working order, the infrastructure owners need to invest in repair, maintenance and sometimes rehabilitation, to ensure that their assets can continue to serve their purposes as they age, and well into the future.

For the past eighteen years Stefanutti Stocks has, through its market-leading strategies, pro-actively assisted clients with economical concrete repair capabilities and strategies to ensure that existing structures continue to stay in service. It is currently undertaking two specialised, concrete industrial plant repair projects in Secunda Mpumalanga - a chimney maintenance and repair project for Sasol Synfuels, and a cooling tower repair for Sasol Group Technology.

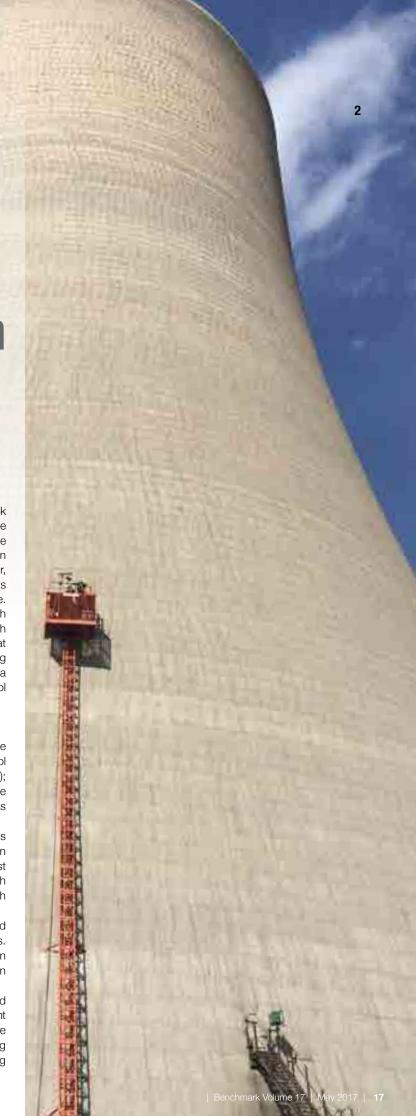
Chimney Maintenance and Repairs

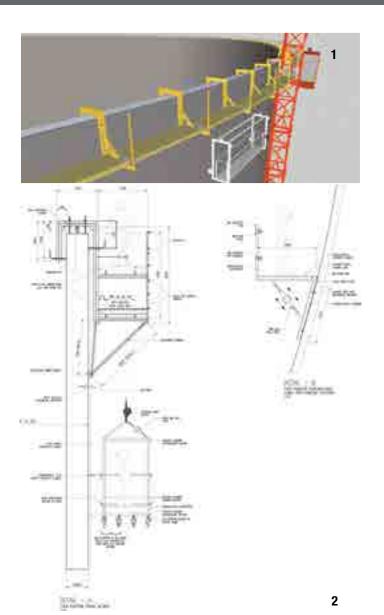
Stefanutti Stocks has undertaken numerous chimney maintenance and repair projects for clients, including Eskom and more recently Sasol Synfuels. These projects usually include cleaning the flue (internal); smoke stack roof repairs (such as crack repairs, delaminated concrete repairs, refractory brick repair, maintenance and concrete coatings); as well as general overall maintenance.

Operations and repair work are generally all undertaken at heights and Stefanutti Stocks's concrete rehabilitation and repair teams can often be seen working at heights above 175 metres. These specialist teams have recently completed contracts at Eskom's 175-metre high Hendrina chimney and the 200-metre high Arnot chimney, which included repairs and lift installations.

Currently two chimneys, the 254-metre high Sasol West Stack and 304-metre high Sasol East Stack are being repaired for Sasol Synfuels. The East Stack is the highest concrete structure in the southern hemisphere! Two 90kw construction (man-rider) winches have been installed next to the flues to hoist material and equipment.

"The nature of this kind of work requires extremely specialised skills, and we have the internal skills, the capacity as well as the specialised equipment to tackle these complex projects," explains Vermeulen. "For the past five years our teams have continuously worked on chimneys and have during this time continued to deliver high-quality finished projects while maintaining an incident- and accident-free record. That's no mean feat!"





Cooling Tower Repairs

The cooling tower repair project for Sasol Group Technology commenced on 25 March 2017 and will be completed in May 2019.

The project includes the removal of delaminated concrete, the installation of migrating corrosion inhibitors, placement of microconcrete / grout, as well as fairing and elastic polymer coatings, and will see a total quantity of:

- 400m3 concrete demolition;
- 400m3 micro-concrete repairs;
- 25 000m2 fairing coating; and
- 34 800m² polymer coatings.

"We will begin work on both ends of these cooling towers," explains Francois Vermeulen. Concrete repairs to these hyperbolical towers will start from the top working downwards. One can almost say that the towers are being re-built in small sections from the top down, while the plant continues to operate with as little interruption to service as possible.

Safety and access to the 185m high cooling towers

A specialised access system, that allows safe, all-round in other words, 360 degree access for staff as well as the equipment and material, is being utilised. Eighty TSP platforms (temporary suspended platforms) were specifically imported and installed for the project, and allow Stefanutti Stocks's in-house rope access operations (mainly for inspections and preparation activities) to run concurrently with the repair scope. To ensure that operations proceed safely weather monitoring systems are in place to supply ample evacuation warning, in the event of inclement weather (mainly storms or high winds).

"A key to the success of this process, is having an operational access system and a work force with the know-how and required skills," says Francois Vermeulen. "One of our site mantras is PPPPP -Proper Planning Prevents Poor Performance - this is being achieved through effective and efficient team work between all key role players on the project."

Captions:

- The tower bracket that will enable access to the top of the Sasol Cooling Towers.
- Section and detail for Cooling tower utilities traveling access platforms (TAP).

Specialised concrete repair to be undertaken at

Koeberg Nuclear power station

Source: François Vermeulen, Stefanutti Stocks Civils contracts director

Towards the end of February 2017 one of Stefanutti Stocks Civils' repair and rehabilitation teams commenced work on a concrete repair project at Cape Town's Koeberg power station.

The project entails the refurbishment of the nuclear island's civil structures including Unit 1 and 2's containment RX and fuel buildings. The fuel buildings are 24-metres wide, 30-metres long and 38-metres high, and while the containment buildings' dimensions vary in size, they all have a total height of 50 metres.

Over the next fifteen months the maintenance will be undertaken within an operational nuclear plant and will include delaminated concrete removal, the installation of migrating corrosion inhibitors, placement of micro-concrete / grout, migrating corrosion inhibitor coatings and elastic waterproofing cementitious coatings.

Quantities on the project include:

- Concrete demolition of 202m3;
- Micro-concrete repairs to 225m3;
- Coatings applied to 2 000m²; and
- The installation of 10 610.

"The access systems for the work are being supplied by Eskom, and as we are not using our own equipment, planning and programming the work will be key to the success of the project," says contracts director Francois Vermeulen. "Due to the exposed location and often inclement weather conditions, we have to be flexible to move around to structures that are less exposed to high winds, thus our programme will to a large extent be influenced by the weather. Working on an operational nuclear plant requires ongoing safety and skills training as well as monitoring to ensure that the teams comply with the safety and quality standards."

A trip down memory lane - the landmark Majuba Cooling Towers

The Majuba Cooling Towers near Standerton for Eskom were the first cooling towers constructed by Stefanutti Stocks, and the first project the company undertook after opening offices in Johannesburg in 1996. The project's worth was more than the company's annual turnover at the time, however, undaunted by the challenge, it was confident in its technical skills and the competence of its teams. The company was also excited by the opportunity to tackle a project that would establish the company in the province.

Three years later, 12 months ahead of schedule, and probably to the disappointment of the competition, the Majuba Power Station cooling towers were complete. The construction techniques applied had not been used in South Africa before and the success of the project was further acknowledged with a Fulton Award for Excellence in the use of concrete.

Constructing the cooling towers

A massive ring beam, measuring 300-metres in circumference and containing approximately 3 400m3 of reinforced concrete, provided the springing level for the tower.

The shell structure of the cooling towers consists of an 88-sided polygon, with precast columns and lintels that are able to incorporate the changing geometry as the vertical height increases.

The construction of the tower shells required concrete that had a very high workability and rapid strength gains in the first 20 hours (8MPa was achieved). The inclined formwork and the width of the shell wall demanded concrete that would flow from the skip into the form without riding on the reinforcement and with the moving vibrators.

Achieving the strength of 8Mpa in 20 hours meant that the formwork could be removed early the following morning, allowing the cycle to begin again.

A project that would normally take four years was completed one year ahead of schedule.

Fulton Award for excellence in the use of concrete

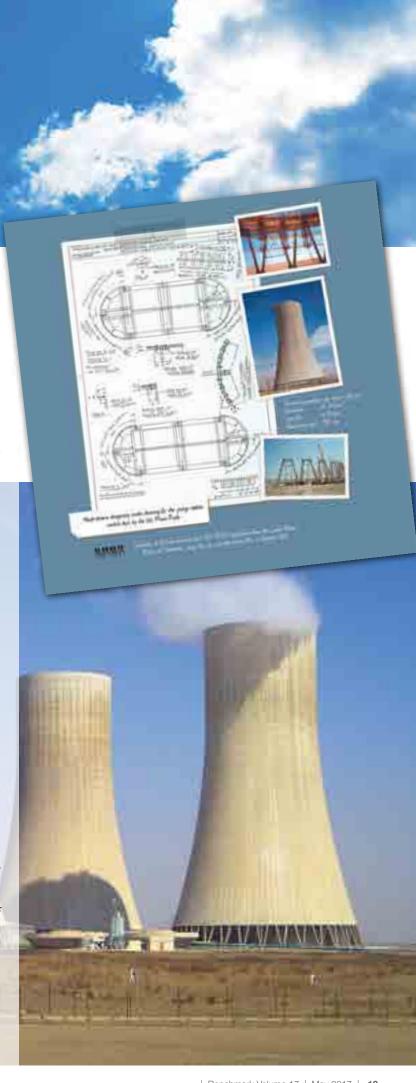
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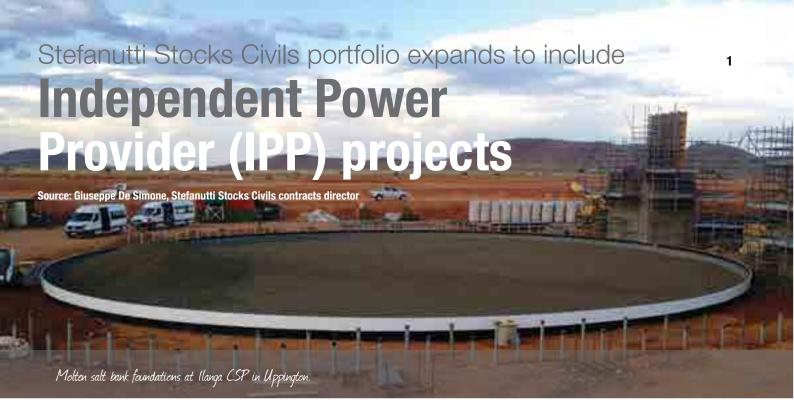
"The unusually stringe<mark>nt time constraints</mark> on this project created the need for construction techniques hitherto not used in South Africa. Intricate shuttering to form an 88-sided polygon and cater for changing dimensions was well handled by the construction team.

"The installation of precast A-frames, the use of rapid strength self-compacting concrete and the overall planning required, were all noteworthy."

(Source: Concrete Beton, Fulton Awards 1999)

Page 84 of A Solid Foundation, a Stefanutti Stocks publication, shows some of the drawings and construction at Majuba.





South Africa has a high level of potential for renewable energy and Stefanutti Stocks Civils is pleased to be participating within this sector, through the construction of three projects that form part of the Department of Energy's (DoE) Renewable Energy Independent Power Producer Programme (REIPPP).

Placing concrete using a boom pump at the Illanga CSP site in Uppington.

Its renewable energy portfolio includes a wind farm and two concentrated solar plants (CSP) respectively located in the Eastern and Northern Cape province. Executing work within this environment requires capable teams that are comfortable with high levels of sophistication, high specifications and construction tolerances. "We are confident, that though we are newcomers to the renewable sector, our track record of fulfilling stringent requirements on complex projects, as well as our talented and skilled operational teams, will translate into the successful completion of these exciting projects," says Giuseppe De Simone, Stefanutti Stocks Civils contracts director.

Concentrated Solar Plants (CSP)

Stefanutti Stock Civils is currently constructing the power blocks at two CSPs, both located in the Northern Cape. The Upington-based Illanga CSP project is being undertaken for client Dankocom (Pty) Ltd, and commenced in September 2016. Construction at the Kathu-based Kathu CSP is being undertaken for Liciastar (Pty) Ltd and commenced in October 2016.

The Civils scope of work on these projects includes the earthworks (excavation and backfill) and reinforced concrete construction of various structures, including:

- Turbine foundation,
- Heat transfer foundations,
- Molten salt tank foundations,
- Electrical building,
- Water treatment foundation,
- Various tank foundations, and
- Pipe rack foundations.

The power block is located at the centre of these 100MW facilities, and is essentially the "brains" of the CSP plant, where, through various processes the solar energy is converted into electricity and transferred to the national grid.

"The CSP projects are executed in an environment where achieving programme milestone dates is sacrosanct and therefore non-negotiable," says De Simone. "Our teams have embraced working within this demanding environment and are rising to the renewable energy challenges that have become part and parcel of our daily activities."





Rand Water awarded Stefanutti Stocks the project to upgrade a water pipeline serving the Free State towns of Steynsrus and Matlwanglwang, located in the Moghaka Local Municipality (Kroonstad). This area depends largely on a seasonal flowing river and some boreholes for its water, and the main focus of the project is to augment the current bulk water supply by increasing the capacity of the raw water available for purification and distribution.

The increased capacity of potable water supply, for both domestic and business use, will be reached by using surface and underground water sources. The upgraded pipeline at the Stevnsrus Pump Station is expected to provide approximately 2,5 MI of potable water daily to a population of approximately 10 000 people, as well as to allow for an increase in the average consumption per capita from 25 l/c/d to 75 l/c/d.

Scope of work

The upgrade to the bulk water supply pipeline that runs between the booster pump station and the balancing dam entails the following activities:

- 27 000m² of site clearance;
- 9 000m of excavation and backfilling of the pipeline;
- Installation of 29 air and scour valve chambers:
- Construction of 9 000m of 315mm diameter HDPE pipeline;
- 9 000m of hydro testing;
- Two tie-in points; and
- Commissioning the upgraded pipeline.

Local contractors

Work opportunities in the Steynsrus area are very scarce, and in order to maximise community engagement and employment created by the project, Stefanutti Stocks subcontracted 100 per cent of the project to five local Construction Industry Development Board (CIDB) Level 1 contractors. These five sub-contractors in turn employ a combined workforce of 30 individuals. "We have broken the project into five activities - excavation, backfill, valve chambers, scour chambers and the supply of bedding material - with each activity being constructed by one of our CIDB 1 sub-contractors," says Richard Harrison, Stefanutti Stocks Roads & Earthworks contracts director. "Our target is to assist each business to gain more experience and improve their skills, so that once the project has been completed, these five companies can apply for a CIDB grading Level 2."

Representing Stefanutti Stocks on site are site agent Walter Mukosi, foreman Andrew Koenyama and safety officer Annah Mathebula. The team is supervising the activities of the five local contractors to ensure construction activities are running smoothly and on programme, as well as being available for advice and guidance should the need arise.

Management of the project

In order to analyse and manage productivity and profitability effectively, Walter Mukosi produces a monthly costing and progress report that is updated daily for each of the five work sections. The primary source of information is the data generated by the subcontractors' foremen, which is collected and verified by Stefanutti Stocks's foreman Andrew Koenyama.

Mr Koenyama and Mr Mukosi compare the daily productivity of each operation with the planned output, to see if the operating methodology needs to be changed. "The secret to successful management of each operation is the quality and accuracy of information we receive on a daily basis," explains Mukosi. After each working day, the responsible foreman reviews the day's performance and considers improvements for the next day's activities. In the event of underperformance, the cause is identified and communicated to the relevant teams. "By looking for the root cause of underperformance which might be external; in other words out of the foreman's hands, or internal; in other words motivation, skills, lack of leadership, and so forth, we are able to see where we, as the site management team, can focus our guidance, improve our planning and/or encourage accountability for our combined productivity levels across the entire site team," says Mukosi.

At the end of April, the project was 64 per cent complete, and on schedule to meet its completion date of 7 July 2017. "The project is running on programme, and we are pleased with the quality levels, and progress being made by our subcontractors," says Harrison. "These local businesses are motivated to increase their skills levels, and are well-prepared to undertake new contracts as CIDB Level 2 companies."



Water sector project for

Mangaung Metropolitan **Municipality**

produces high standards of workmanship

Source: Craig Cock, Stefanutti Stocks Coastal project manager

Sterkwater Waste-Water Treatment Works (WWTW) is a brownfields project that is currently being constructed by Stefanutti Stocks Coastal for the Mangaung Metropolitan Municipality. Once completed, the capacity of the WWTW will increase from 4 MI-a-day to a hydraulic capacity of 20 MI-a-day.

This water sector project scope includes the construction of:

- elevated inlet works,
- biological reactor,
- blower building,
- motor control centre (MCC) building,
- three secondary settling tanks,
- return-activated sludge (RAS) / waste-activated sludge (WAS) building,
- chlorine contact tank.
- wash-water pump station,
- return flow pump station,
- medium voltage (MV) building,
- guard house,
- GRP pipe network, and
- paving and landscaping.

"As the project has progressed the management of the water table has been the most interesting aspect to manage," says project manager Craig Cock. "Currently our freeboard from ground level to the current water table is 5,5 metres and the majority of all our excavations exceed seven metres. The biological reactor, which covers a footprint of 4 500m² is the deepest at 8,5 metres."

The high standards of safety and housekeeping on site have translated into exceptional levels of workmanship. The biological reactor has proven to be the site's stand-out structure, with the concrete finished to an incredible accuracy and standard.

Craig Cock, contracts director John Woodburn and safety officer Edwin Lewis have been issued their professional accreditations from the South African Council for the Project and Construction Management Professions (SACPCMP) while working on the project. A further notable achievement is the high standard senior foreman Patrick Sebego and his team have been producing on site.

The project is due for completion towards the end of 2017, and at the end of March had achieved a lost time injury free rate (LTIFR) of zero, within 270 000 man hours worked. "This project requires a strong team that works hand-in-hand to achieve a common goal," says contracts director John Woodburn. "This is exactly what we have, and it is definitely paying off."

Captions:

- Sterkwater Waste Treatment works biological reactor, which covers a footprint of 4 500m² and is up to 8.5-metres deep
- An aerial of the Waste Water Treatment Works.





Stefanutti Stocks Geotechnical

celebrates a few milestones since inception

Source: Tiaan Erasmus, Stefanutti Stocks Geotechnical commercial director

As a leading Southern African geotechnical contractor, Stefanutti Stocks Geotechnical continues to pursue excellence in execution by putting its years of experience across multidisciplinary geotechnical capabilities and services to work to the benefit of its clients.

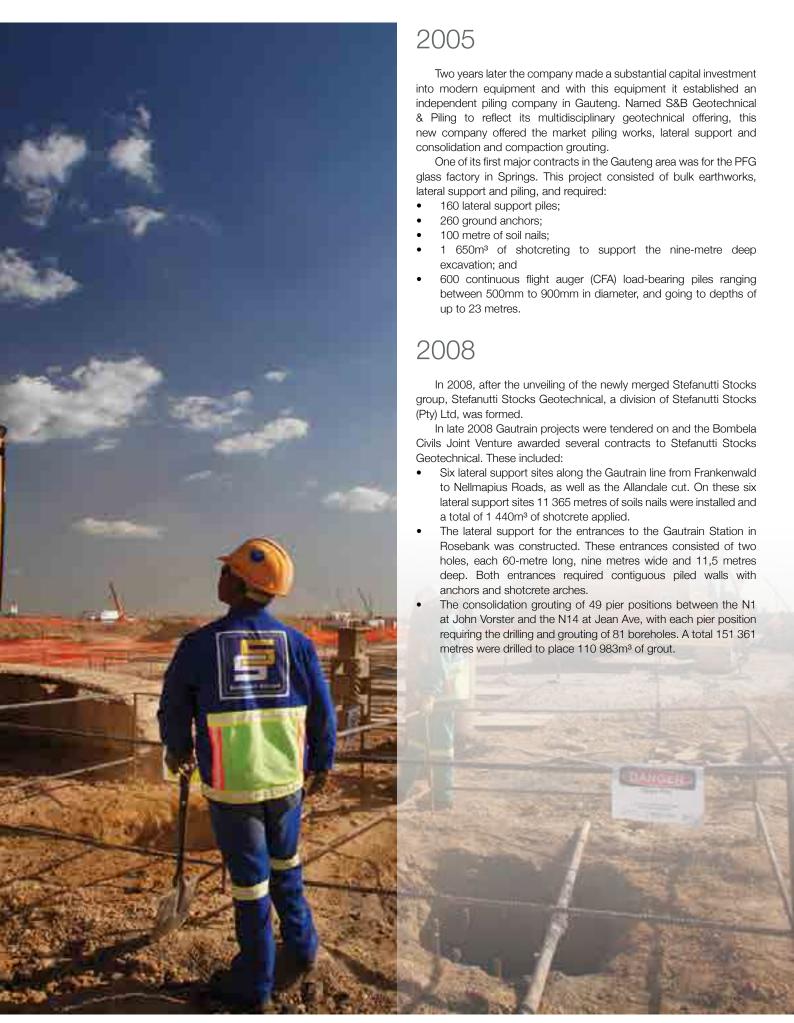
2003

In 2003 Stefanutti & Bressan established a piling division.















2010

Stefanutti Stocks Geotechnical, as the lead partner in a 50/50 joint venture, was awarded the piling to the Kusile Power Station. The in-situ ground conditions at the power station necessitated extensive piling including the casting of some auger in-situ piles up to 25 metre deep. These varied from 800mm to 1200mm in diameter.

At the end of an almost five-year programme, which saw the civil contractors working on various work packages across the power station, the joint venture had installed a total of 8 540 piles, used 777 725m3 of concrete and 9 229 tons of reinforcement, as well as having drilled 12 882 metres for the installation of the piles.

In 2010 Stefanutti Stocks Geotechnical also successfully completed their first major cross-border project in the Tonkolili district in Sierra Leone. The success of this project saw Stefanutti Stocks Geotechnical expand their geographical footprint into Africa

2012

During this period, an increase in basement development in upmarket areas like Sandton, Menlyn, Brooklyn and Rosebank was experienced.

Some of the basement construction completed, within a relatively short period of time, included:

- Sandton City Repositioning Project;
- Menlyn Maine Epsilon Building;
- Menlyn Maine Falcon Building;
- Menlyn Maine Pegasus Building;
- Brooklyn Point Office Block;
- Corobay Corner Office Block; and
- Boardwalk Hotel, Port Elizabeth.

2015

Stefanutti Stocks Geotechnical successfully completed the design and supply contract for the deep foundations to the Kazerne Transit-Oriented Development project in Newtown, Johannesburg. This comprised of 25 039m³ of bulk earthworks, 1 750m² of permanent lateral support, 440 structural piles and temporary traffic diversion.

The piling work comprised of 242 Continuous Flight Auger (CFA) piles, installed up to 23 metres deep; 133 polymer-technology drilled piles installed to a depth of up to 30 metres deep; as well as 65 Auger Cast In Situ (ACIS) Soldier piles installed to depths of up to nine metres.

2017

"We have, since the beginning of 2017, been awarded thirteen contracts across South Africa," says Tiaan Erasmus, Stefanutti Stocks Geotechnical commercial director. "These include the award of the lateral support, bulk earthworks and dynamic compaction contract for the Lakeside Towers development in West Avenue, Centurion." The geotechnical project for Exxaro's new head office is due for completion at the end of July 2017.

What makes this project particularly challenging is the fact that Centurion is classified as a high risk dolomite area. It has a high inherent risk of very large size sinkhole and doline formation, which required the implementation of a dolomite risk management strategy, including the appointment for a dolomite risk manager to the project.

"We have previously worked in the Centurion area and are looking forward to applying our geotechnical skills to the benefit of this project, as well as to all present and future projects," concludes Erasmus.



Stefanutti Stocks Geotechnical successfully completed the design, supply and installation of piling to a precast beam bridge that was constructed over the Xixamba River. The bridge, located in the Bushbuckridge area of the Ehlanzeni District of Mpumalanga, forms part of a new road from Marijane to Merry Pebbles that runs through an area marked by many small agricultural settlements. The new road replaces a narrow dirt road and will improve the infrastructure in these rural areas and facilitate better access to schools and clinics as well as access to employment and business opportunities for the local communities.

After undertaking the geotechnical investigation work Stefanutti Stocks Geotechnical submitted a design and supply proposal based on the information on the soil conditions identified during investigation. This proposal included the installation of twenty-one temporary cased, cast insitu piles, to depths of up to 25-metres. The most cost-effective solution was to use piles ranging between 900mm and 750mm in diameter.

The area is characterised by different classes of rock, ranging from soft rock (R2) up to very hard rock (R5). The contract required drilling through 220 metres of these different classes of rock, for which Stefanutti Stocks Geotechnical utilised its Casagrande B200 piling rig.

Heavy rains resulted in very wet soil conditions, that complicated the piling operation, in particular the casting of 158m³ of concrete, supplied by a ready mix plant located just outside of Hazyview. The very hot and humid conditions at Merry Pebbles, as well as the twohour travelling time from Hazyview, resulted in the use of admixtures to ensure the workability of the concrete.

The site team rose to all the challenges, and successfully completed the project well ahead of time and to the satisfaction of the client.

"One of our objectives on our geotechnical contracts includes establishing and building good relationships with our clients and the consulting engineers, and we would be delighted to work with, or for, the Merry Pebbles team again," says Shaun Butler, managing director of Stefanutti Stocks Geotechnical.



An aerial view of the wet conditions on site on the banks of the Xixamba River. Casagrande B200 piling rig drilling with temporary casing to seal of the

Stefanutti Stocks - multidisc

Structures

- heavy industrial structures
- power projects
- mining infrastructure
- bridges
- water & waste-water treatment concrete rehabilitation

Marine

- jetties
- quay walls
- breakwaters scour protection and dredging
- caissons and pre-cast structures slipways and boat ramps marine furniture

- design and construction revetments and shore protection

Geotechnical

- geotechnical investigation & reports
- installation of different types of piles
- lateral support
- rock anchoring & shot-creting consolidation & other grouting diaphragm walls

Roads & Earthworks

- bulk earthworks
- road construction & rehabilitation
- crushing & screening
- asphalt manufacture
 & paving
 fibre-optic infrastructure
 dam construction
 mine infrastructure

- & development
- agricultural development

Pipelines

- large/small diameter welded steel pipe HDPE pipelines ductile pipelines

- oil & gas pipelines pump, mechanical & electrical installations
- in-situ concrete lining of pipelines



ciplinary construction group

- Mining Services
 contract mining
 open pit mine design, planning & optimisation
- fleet simulation & selection
- contract mining
- crushing and screening
- rehabilitation and closure materials handling
- energy coal processing discard and fine coal disposal & recovery
- coal management

- tailings management

 design solutions and construction management
- waste facility operations & management

Building Construction commercial buildings high-rise buildings

- industrial & service buildings
- hotels
- shopping centres social infrastructure
- mass housing
- township and residential developments

Mechanical & Electrical

- structural steel erection
- mechanical equipment installation
- pipe spool fabrication
- installation of process piping systems
- plant shut down & maintenance
- water treatment plants switchgear & motor control centre installation control system installation electrical field device installation field instrumentation installation

- commissioning assistance

excellence in execution

United Arab Emirates

- general construction
- electromechanical
- interior fit-outs & refurbishment



Quay walls

Zambia Road Development Agency project

will link Kalabo in Zambia to Angola

Source: Jonathan Pells, Stefanutti Stocks Roads & Earthworks contracts director

A joint venture between Stefanutti Stocks Construction Zambia and Consolidated Contractors Company of Kuwait (CCC) was awarded the construction of an 85-km stretch of road (including a 95-metre span bridge), leading to the Angolan border in the Western Province of Zambia.

Stefanutti Stocks has undertaken various road projects for the client, the Zambian Road Development Agency (RDA), including construction of the 10-kilometre Arcades to Airport Road in Lusaka, the 85-kilometre road between Zambezi and Chavuma in North-Western Province; as well as the 107-kilometre Bottom Road in the

The newly-awarded Kalabo-Sikongo road project lies 650 kilometres west of Lusaka and traverses the Barotse Plains that lie to the west of the Zambezi River. It runs in a westerly direction through the grasslands and crosses a number of small streams and flood plains after Sikongo, prior to reaching the Angola border.

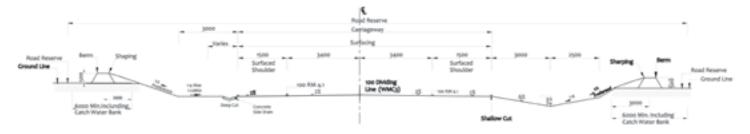
The project scope includes:

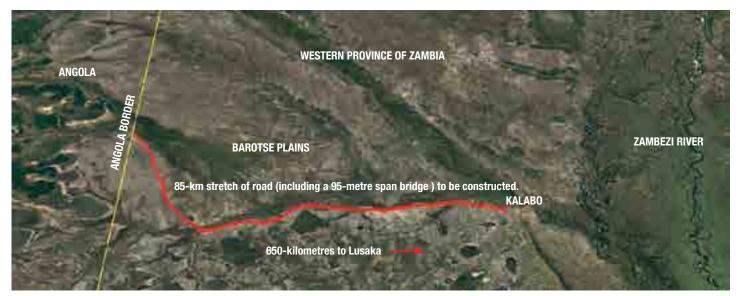
- earthworks;
- pavement layer construction (crushed stone base);
- carriageway surfacing (asphalt);
- 95-metre span bridge construction at kilometre 56;
- drainage-related works construction; and
- ancillary works.

"The Engineering Design is of a high standard for this area and we are required to crush 400 000 tons of material for the base course, asphalt and concrete," says contracts director Jonathan Pells. "We will also have to allow for flooding during the rainy season in our construction schedule, as some of the potential borrow pits and the bridge site are prone to flooding and are usually submerged and impassable during the rainy season."

The RDA hopes that many economic benefits will be realised from the construction of the road, including the opening of a trade frontier with Angola that would include provision of access to the Libito harbour. Other expected benefits include economic growth stimulation, and easier access to schools, clinics and markets for the local communities living along the route.

Currently site establishment for the project has begun in Kalabo. The construction of the road and bridge is to be completed within a 24-month period. The project is being jointly financed by the Kuwait Fund for Arab Economic Development (KFAED), the Arab Bank for Economic Development in Africa (BADEA), the OPEC Fund for International Development (OFID), the Saudi Fund for Development (SFD), and the Government of the Republic of Zambia.





Thirty-three-kilometres of road upgraded for

Exarro in Limpopo

Source: Mark Naidoo, Stefanutti Stocks Roads & Earthworks senior site agent

The upgrading of a 33-kilometre long rural road, with drainage structures, is being undertaken by Stefanutti Stocks Roads & Earthworks in partnership with Exarro, the Limpopo Road Agency and Lephalale Municipality.

The 24-month contract to upgrade the gravel road that links the village of Ga-Selaka with Rietfontein to Letlora, is being undertaken for client Exarro, and includes:

- Stormwater and drainage structures,
- Block paving, gabions
- stone pitching
- construction of a single seal road.

Construction on the road that is situated ten kilometres from the Botswana border, began in late October 2016, and should be completed in October 2018.

The water shortage and poverty in the area, the high youth unemployment and political interference are factors that whilst affecting the day-to-day operations on the contract, have provided Stefanutti Stocks with countless opportunities to give back, and to engage with the community.

In terms of localisation content, thirty per cent of the contract value must be spent on small local businesses and local SMMEs, and eight per cent of the project value must be spent on employing local members of the community within the local labour force.

The partnership with Exarro, the Limpopo Road Agency and Lephalale Municipality sees Stefanutti Stocks contributing to the accommodation and catering for plant operators and supervisors; supplying the plant/machinery utilised on site; employing and training local safety reps and points-men; as well as security staff.

The site offices have been rented from a local business owner, who will benefit from the conversions, as well as the provision of boreholes for water, building infrastructure and electricity undertaken by Stefanutti Stocks. All these facilities will remain behind, once the project has been completed.

In addition to donating soccer balls and netball balls, as well as grading soccer and athletics fields, the site team has also visited many of the over twenty local schools, to educate scholars on traffic and road safety. Many more activities have been earmarked to invest in the local community, including a tree planting project during Arbor week that in the years to come will provide both shade and fruit at schools.

"Our site team is fully embracing the communities and the opportunity to share their knowledge, be this about construction operations, safety principles or just life lessons," says Mark Naidoo, senior site agent for the project. "It is our aim to keep politics out of construction and to build strong relationships with all stakeholders on the project, and we are fully committed to once again complete a project with which we are proud to be associated ."

Captions:

- A Stefanutti Stocks Roads & Earthworks grader unit processing fill layer N0.1 on Road C
- A Stefanutti Stocks Roads & Earthworks grader unit processing lower selected layer on Road C.



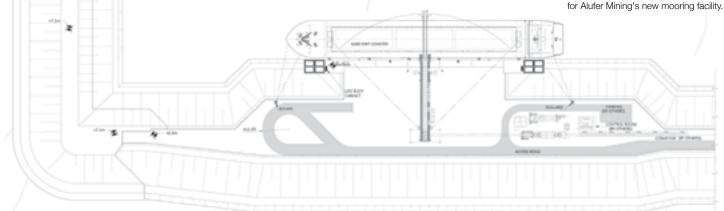


Stefanutti Stocks Coastal to construct export facility for

Guinea-based Alufer Mining Limited

Source: Abraham Coetzer, Stefanutti Stocks Coastal construction manager

Pictured is the barge berth facility arrangement



Guinea-based Alufer Mining Limited selected Stefanutti Stocks Coastal to undertake the marine civils work for its Bel Air Mining quarry and the construction of a bauxite export facility, situated six hours from the capital of Conakry on the West Coast of the Republic of Guinea. What drew Alufer Mining's attention to Stefanutti Stocks in particular was the company's prior experience in rock revetment construction, its expertise in extracting armour rock, as well as its impeccable safety record.

Project Overview

The project, which commenced on 19 January 2017, will include the construction of a 1.5-kilometre long revetment, a mooring facility for trans-shipment barges, as well as blasting and mining of approximately 1.2-million ton of amour rock required for the revetment.

Quarry mining

The commencement of the blasting and mining activities will coincide with the start of the rainy season in Guinea, and over the next three to four months up to four metres of rain can be expected. A further mining consideration is the safe operation of all blasting activity at the guarry located in the vicinity of a populated area, which, for safety reasons, will have to be evacuated prior to each blast.

There is not much marine construction expertise in the coastal countries up the African continent, however Stefanutti Stocks Coastal is required to meet contractual localisation requirements, and therefore will be implementing training programmes, aimed at up-skilling local communities and introducing them to the principles of construction. Stefanutti Stocks's in-house, custom-developed Solid Foundations course will be offered, which covers a number of modules, relevant to the construction environment including concrete, formwork and reinforcing.

Furthermore, in Guinea, as part of the guarry mining component of the contract, qualifying members of the community will also be trained as ADT drivers and those who are successful in completing their certification, will be employed on site. "The lack of experience of newly trained operators could affect the production targets of the project, however we are confident that the high standards of training provided by Stefanutti Stocks Mining Services will result in operators that are skilled, aware and well-versed in the crucial element of safe operations on site," says construction manager Abraham Coetzer.

Revetment & mooring facility

The Guinea coastline is very shallow therefore the revetment, or causeway, is being constructed 1.4 kilometres out into the sea. The mooring facility at the end of the revetment includes a pre-cast block wall, made up of 184 reinforced concrete blocks (each weighing 22 ton), which fit together like a large-scale LEGO project. This 100-metre

long block wall needs to form a foundation that is accurate to within a few millimetres. The zero visibility within these murky waters means that divers will not be able to monitor the accuracy therefore the foundation concrete must be placed within the tolerance range.

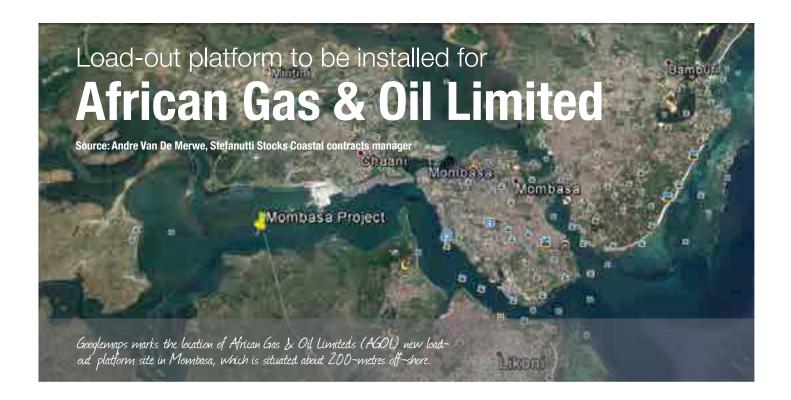
Once completed, a conveyor structure will then be built on top of the causeway, on which the bauxite will be conveyed to moored barges, which in turn will shuttle their loads out to ships waiting at their moorings in deeper water out at sea.

Mobilisation

Currently the project's cargo vessel is en route to Guinea. Once it has landed at Conakry in the Republic of Guinea after a 21-day ship journey from Durban, supplies will still be in transit, on a truck to site for at least another two to three days due to the highly congested pedestrian and vehicular traffic. En route to site, the trucks will have to pass over a bridge crossing a flowing river that cannot bear the load of some of the equipment. To overcome this, some of Stefanutti Stocks's equipment such as large crawler cranes and long-reach excavators, are being transported in pieces, and will be reassembled again once

"It is evident that the physical site set up cannot be rushed, and this can be frustrating at times," says Coetzer "We are, however, looking forward to commencing construction operations."





The installation of marine facilities, for African Gas & Oil Limited (AGOL) in Mombasa, was awarded to Stefanutti Stocks Coastal after the quality and safety of the previously appointed local construction contractor was deemed as inadequate. "Our track record of excellent quality and a superb safety performance on contracts previously undertaken for the project's engineers, WSP Coastal, resulted in their recommending us to complete the work," says contracts manager Andre Van De Merwe.

On 24 February 2017 work began on the project's logistics and planning, including the design of temporary works and the design of the layout and preparation of the barge that is transported across the ocean from South Africa to Kenya.

This project entails the installation of a load-out platform, complete with berthing and mooring dolphins. Though similar to a fuel off-loading facility constructed by Stefanutti Stocks (in joint venture with BAM International) in Sierra Leone in 2013, a particular challenge on this project is that the platform is located 200 metres away from land. Its

location affects the design of the layout of the barge, as it will serve as the only 'firm' base from which construction operations, which will include driving 900mm piles to a depth of 50 metres, will take place.

The Stefanutti Stocks Coastal team will be working in an environment of strong currents, a high tidal range and large volumes of water. A further technical and safety consideration is that construction activities will take place above an existing live pipeline that pumps LPG gas from the on-land storage facility to the tankers.

"We are pleased to be working with WSP engineers again, and are looking forward to delivering the same standards of quality and safety the led to AGOL to awarding us the project in the first place," concludes Van De Merwe.

Caption:

The Stefanutti Stocks barge departs the Durban Harbour to begin its long sea journey to Mombasa.



Navigating through challenges within the

marine infrastructure construction environment

Source: Andrew Pirrie, Stefanutti Stocks Coastal contracts director. Contributor: Tim Milner, Stefanutti Stocks Coastal bid manager

In spite of major technological advances over the past few decades, it still remains a mammoth task to plan, manage and construct a marine infrastructure project. The process often requires a lot of prudence, even more patience, as well as a very healthy respect for the forces of nature. The marine environment is not only a challenging operational environment for a construction team, but also a very taxing environment for construction materials, making it critical to design and construct structures in such a way that it ensures their durability, whilst still offering a low-cost solution to the client.

"The downside of being a niche marine contractor is that our market is linked to commodity prices, and often projects coming to market are delayed due to price fluctuations, which in turn affect capital expenditure," says Stefanutti Stocks Coastal contracts director Andrew Pirrie. "Yet, when these projects do come to market, our track record of value engineering, quality production and safe operations often forms the basis of our being awarded projects, even when we are not the lowest on tenders."

Design & Construct

Stefanutti Stocks Coastal's experience within the marine infrastructure sector includes the rich heritage of Civil & Coastal, a niche marine contractor that was established in 1994, and that had, by the time it was fully acquired by Stefanutti Stocks in 2009, become well known for its culture of optimising designs.

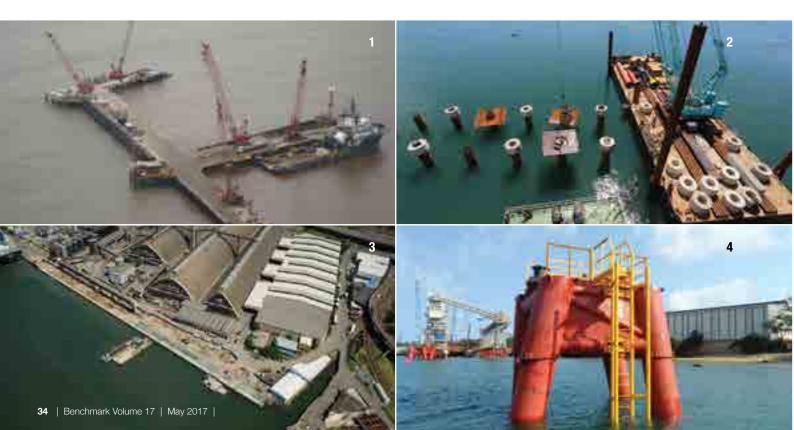
Early contractor participation in a project, right from project inception, allows for a design to be optimised to suit not only the operating

environment, but also allows for the consideration of appropriate construction methodologies, taking the project location and resources into account. The design & construct project delivery model presents a desirable scenario, that can often result in time and cost saving.

Some of the company's design and construct highlights include the 2004 Saldanha oil jetty berth fender support where an alternative design saw the construction of a "launched" cantilever fender support from an existing caisson on the Saldanha oil jetty berth. This methodology saved Portnet nearly 50% on the postulated scheme by minimising floating plant, and employing launch-type construction and pre-cast systems.

In 2009 the design and construction of a new dock as an extension to the existing Malongo Dock in Angola was undertaken, whereby the chosen construction methodology entailed the driving of tubular structural piles (filled with reinforced concrete) followed by the installation of precast concrete trough beams and precast concrete deck slabs, with in-situ infill marine grade concrete between the deck slabs. "The reason for using precast was that the concrete quality in the region was not up to standard, therefore all precast work was done in South Africa, and then shipped to Malongo," explains Pirrie. The insitu infill concrete was cast using Dieci mini-concrete mixer trucks and using stone, cement and fly-ash shipped from South Africa.

In 2013 the installation of mooring and berthing dolphins for Base Titanium Limited in Kenya saw Stefanutti Stocks propose an alternative solution that entailed the use of prefabricated structural steel headstocks in lieu of reinforced concrete platforms. "The headstocks



were also utilised as pile guides thus the installation of the raked piles and structural steel headstocks were concluded simultaneously," says Pirrie. "This methodology translated into savings on cost and time, effectively killing two birds with one stone."

Since 2014 a joint venture consisting of Stefanutti Stocks Coastal and its enterprise development partner, Axsys Projects, has been undertaking an upgrade to berths 1-4, 13 and 14 of Maydon Wharf that has seen some technical innovations including the implementation of new techniques never used before in South Africa for the installation of anchor piles as well as the in-situ construction of the submerged fender panels for the cope structure. This project was named the winner of the Railway & Harbour category in the 2016 SAICE-SAFCEC Awards.

Construction fleet & mobilisation

In addition to its years of industry experience and seasoned marine experts, a further asset Stefanutti Stocks Coastal is able to offer its clients is the company-owned specialist marine construction fleet. This plant and equipment can be mobilised, even across the ocean, to where-ever it is required. Furthermore, the contractor's global marine network, allows it to mobilise appropriate equipment from anywhere in the world to projects that are situated in extremely inaccessible locations.

More often than not the required infrastructure, in terms of specialised equipment, plant and expertise is not readily available in many of the developing countries where marine infrastructure construction projects are undertaken.

As a South African-based marine contractor, mobilising for a local site with supporting transport infrastructure that caters for 21st century traffic conditions is not without its challenges. Mobilising across the ocean, with the accompanying shipping logistics, import and export regulations, and bureaucracy, as well as the long transportation time frames involved, requires precise, long-term planning and a sound logistical strategy.

Stefanutti Stocks Coastal has mobilised to a number of countries, including to Kenya, Sierra Leone, Tanzania, Mozambique, and Angola, yet at times the unforeseen has still occurred. "On one occasion, during an incredibly heavy storm one of our barges, completely kitted out and en route to its project went missing at sea," says Pirrie. "This would have been impossible to replace at short notice, and the immense relief we all felt, once we had located and secured our high-value asset again, is difficult to describe."

Currently Stefanutti Stocks Coastal is mobilising its fleet to two marine projects in Africa, both of which require a very different approach to the logistical requirements and construction methods. In the Republic of Guinea, the contractor will be constructing a 1,5-kilometre revetment as part of a greenfield export facility, for Alufer Mining (article on p32). In Kenya (article on p33) it will be constructing an LP Gas offloading facility for African Gas & Oil Limited (AGOL).

Safety Standards

The marine construction environment requires the application of very strict safety standards, particularly in projects undertaken for private clients across the African continent, where heavy penalties can apply to contractors who operate outside of safety standards (a fine of up to 100 000 US\$ for one lost time injury).

In conclusion

marine infrastructure construction environment is an incredibly dynamic, constantly changing environment," says Pirrie. "Even after 25 years in the industry, there is seldom a contract that we undertake that does not provide us with a new challenge, or a new opportunity to find an innovative engineering solution."





Captions:

- An aerial perspective of the Malongo Dock in Angola, a project that was designed and constructed by the company.
- The Majahazi Moja Barge with its 180-ton crane positioned next to the loadout platform, where Stefanutti Stocks undertook the design and construction project (including the piling) for a conveyor trestle, a concrete decked loadout platform supporting a shiploader, two mooring dolphins and two berthing dolphins for Kwale Mineral Sands
- The award-winning Maydon Wharf has provided the opportunity for a number of innovative and technical marine construction solutions.
- The west mooring dolphin standing proud at the Kwale Mineral Sands Project, for which the project engineers was also WSP Coastal.
- The rock revetment construction capability (pictured is an East London project) was a key factor in the award of the project in the Republic of Guinea.
- In the marine construction environment a lot of work takes place from selfpropelled hopper barges and other flat-deck crane barges. Pictured are two barges that were utilised during a marine reconstruction project undertaken in 2013 at Durban Harbour's Island View Berth 5.



network

Source: Chris Tshivhidzo, Stefanutti Stocks Civils alternate contracts director

Stefanutti Stocks Civils has completed the civil construction of approximately 2.5 kilometres of rail-track slabs between the Pretoria and Walker Stations. The contract was undertaken as the civils subcontractor, working for the OTEO/4Phase joint venture that is PRASA's nominated turnkey contractor for the project. 4Phase has also been enterprise development partner to Stefanutti Stocks Civils since 2016.

"Stefanutti Stocks Civils was determined to make the project an all-round success - in terms of its management as well as the execution of construction activities with excellence." says Stefanutti Stocks Civils alternate contracts director Chris Tshivhidzo.

The contract's scope

The objective of the project was to eliminate stray electrical currents emanating from aging overhead transmission lines and structures or OHTE (Overhead Track Equipment) that are damaging the adjacent Gautrain infrastructure. In addition to OHTE replacement the civils contract also included the removal of the conventional tracks (both ballast and sleepers) and replacement of these with a concrete track slab system, on which the rails are then secured. The new track slab was constructed on two lines, running through three stations and over a distance of 2 550m. The site was very congested, with access and safety having to be managed carefully, in particular with regard to man machine interfaces.

Once construction was underway it was established that the founding material under the ballast was of exceptionally poor quality, consisting mostly of clay. This required a redesign of the formation layer works as well as the installation of a new storm water and sub soil drainage system.

The overall project comprised of civil works, rail works, signalling installation and OHTE works, with Stefanutti Stocks undertaking the civil works scope. This included:

- ballast removal:
- excavation of contaminated / existing earthworks formation;
- construction of a new drainage system consisting of manholes, catch pits, sub soil drains and storm water drain pipes;
- backfill of new earthworks formation;
- construction of track slab panels;
- construction of apron slabs;
- construction of v-drains;
- platform coping block cutting; and
- platform remedial works.

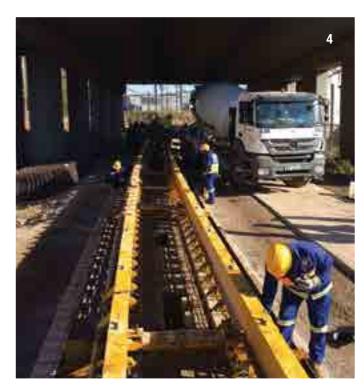
The stormwater pipe installation was a challenge during construction for two reasons. The first difficulty encountered was the restricted access on site, which meant that only eight to ten metre sections could be installed (excavation and placing of pipes) at a time. The second challenge encountered was related to the design gradients of the stormwater system, which necessitated careful surveying to ensure the tight tolerances in line and level were met.

The initial setting up of the track slab jigs presented a challenge, however once the work crews got into the daily rhythm of setting up, pouring and stripping the team quickly achieved the required production target and sometimes even exceeding the target.

People Relations

The project employed a large compliment of local community members who were required to undergo training relevant to their roles during the course of the contract. Training undergone included the in-house Solid Foundations course, flagmen and banks men training, firefighting and first aid, as well as the handling of hazardous chemicals.





"Everyone involved learned many valuable lessons while working on this project, including understanding and navigating the current political landscape and how to work closely with communities, to ensure as few distractions from positive progress as possible," says Tshivhidzo.

The team consisted of a number of young engineers, a strong commercial team and experienced supervisors, who all worked closely together and supported one another in delivering a project that would astound Stefanutti Stocks's employer (the OTEO/4Phase JV) and PRASA. "A train only performs as well as its tracks allow it to do. Our teams did their bit in ensuring the tracks are set perfectly," says Tshivhidzo. "Our teams worked twenty four six, and in spite of being worn out in the end, they maintained an excellent safety record, and should all be very proud of their achievements."

The teams included site managers Laurence da Silva and Moses Tlou; senior quantity surveyor Donovan Reece; site engineer Thabang Ndwebi, quantity surveyor Evani Moonsamy and site administrators George Ledwaba and Joseph Monyatsi. Representing safety were safety officers Jeandre du Plessis and Kgololesego Lethoko. Senior foremen Winston Kapp; Albert Mokgohloa; Sydney Kgatla and foreman Boxing Molobela expertly guided their production teams, including junior foremen Always Rambebu, Jan Mofokeng, Tankiso Maloka and Nare Chokoe. The volume of activities motivated the appointment of Mthunzi Zulu, as an additional site manager to assist site managers Laurence da Silva and Moses Tlou by relieving some of their load.

Captions:

- The completed rail-track slab project.
- Restricted access on site often resulted in a congested construction site that required careful logistical planning.
- The backfilled new earthworks formation.
- Track laying underway.
- Placing concrete for the track slab panels.





Al Tayer Stocks Building's

construction portfolio continues to grow

Source: Laura Rowley, Al Tayer Stocks Interiors bid manager and Simon Jewell, Al Tayer Stocks general manager

Stefanutti Stocks's associate in the United Arab Emirates (UAE), Al Tayer Stocks (ATS) Building, has continued to grow its client and project base. The Dubai-based construction contractor recently celebrated the award of two new projects, including a multi-storey building project - the Meydan Residential & Retail building. The company has also recently completed a Data Centre, as well as a school extension project.

The Meydan Residential and Retail Building is being undertaken for Al Tayer Real Estate and is the first multi-storey project awarded to ATS Building.

The project entails a new build residential and retail building (basement + ground + 4 floors) with an approximate ground floor area of 370 000 square feet (37 000 m²) consisting of an 80 000 square foot (8 000 m²) basement carpark, a 20 000 square foot (2 000m²) ground floor shell and core retail area, and 270 000 square foot (27 000 m²) of residential area comprising 108 one and two bedroom apartments.

The building is being constructed with a traditional concrete basement raft slab and outer walls, a concrete frame and posttensioned upper slabs, with internal and external block-work walls. The envelope will be finished with aluminium and glass curtain walling and a laminam tile façade.







ATS's scope also includes all internal high quality finishes, mechanical, electrical and piping services throughout the building, the construction of a swimming pool and all associated landscaping.

The **Dubai English Speaking College (DESC)** was originally built in 2007 and Al Tayer Stocks recently completed the construction of a new three-story classroom extension block adjacent to the existing sports hall and swimming pool. This provided eight new classrooms with new male, female and teacher changing and washroom facilities, as well as staff, medical and physical education (PE) rooms.

The substructure is a typical raft foundation with a lightweight, gauged steel-frame superstructure with a steel infill façade that is clad with magnesium board and finished with an EIFS painted render system. The school extension's internal finishes include metal stud partitioning, ceramic tile floors, painted walls and suspended ceilings. New building services (MEP) were provided throughout and connected into the schools existing system.

A further recently awarded construction project is the Garden Pavilion project, being undertaken for a private customer. The new Garden Pavilion building comprises of a 23-space basement car park, living facilities and ground floor entertainment and dining areas.

The foundation work is reinforced concrete (RC) footings (raft foundation) resting on compacted soil. The building is an RC-framed structure with light-weight concrete block walls, and the building's façade is finished with both plaster and tile and timber cladding.

The Al Tayer Group Data Centre facility was constructed in an industrial area of Dubai, called Jebal Ali Industrial 1. This new two-storey high RC frame building houses a data centre for the Al Tayer Group's retail division, and forms part of the Omni Channel Vision, which sees the integration of shopping methods available to consumers, such as online, physical shopping or telephonic retail.

The substructure consists of typical RC pad footings with tie beams and a ground floor slab. The external envelope is in insulated blockwork and finished with painted render. The roof covering is a built-up system, finished with a waterproof membrane and plinth supports for the roof-mounted mechanical plant.

The internal finishes within the data centre, and generator building include metal stud partitioning, raised access floors and painted walls. All MEP building services were undertaken by the Al Tayer Stocks inhouse MEP division.









Lexus-themed restaurant and SAP offices

Source: Laura Rowley, Al Tayer Stocks Interiors bid manager

The incredibly exciting and innovative **Intersect by Lexus** restaurant project was born out of Japan where it was designed by Wonder Wall Interior designers.

The newly-opened Dubai restaurant based in Dubai International Financial Centre (DIFC) is a two-storey establishment that seamlessly merges the motor industry with the world of cuisine.

Situated on the ground level are the main restaurant, seating area and a library. The motivation behind this combination is the notion of creating a 'third home' - a place to meet, to relax and to do business.

The detailed design of the upturned sand dunes ceiling was designed and constructed by ATS, and these house the hidden services and light fittings. A chandelier forms the centrepiece of the seating and relaxation area. "The wave ceiling alone presented a challenge as the original design intent had been for a "paper ceiling", which was deemed impractical to install," explains James Toy, senior project manager, ATS Interiors. "We proposed a revolutionary alternative design, which was approved and once installed really brings this beautiful restaurant feature to life. We are immensely pleased with the result."

Marble-clad circular columns house the library and book shelves, with feature artwork on the surrounding walls of the restaurant. All four



sides of the restaurant are covered with a bamboo, Lexus designed, floor-to-ceiling curtain Mashrabia screen.

The main kitchen is situated on the restaurant level with a further kitchen on the Hypocaust level, that is accessed via a set of stairs that have been constructed and clad with marble wall panels and floor tiles.

In the Hypocaust level a futuristic car sits on top of a raised glass panel floor, underneath which Lexus car parts are laid out and illuminated by coloured LED lighting.

The bathroom facilities are accessed via a corridor displaying 1 500 mini cars, laid out on a vertical wall, with each one telling an individual story. The bathrooms themselves boast fully self-functioning toilets and mirrors with inbuilt TV screens.

As the design for Intersect by Lexus originated in Japan, all materials and design shop drawing approvals with all materials were shipped to Japan, prior to final choices being made.

SAP Middle East Headquarters

ATS Interiors recently completed a high-end, Perkins and Will designed, four-floor office fit-out for global SAP, Middle East Headquarters.

SAP's Middle East headquarters are located in the new Butterfly Building in Media City in Dubai. One of the office floors is split for mixed use, with half a floor used as kitchen, café and dining area and the other half for office space and meeting rooms.

The other three floors include general office space as well as a variety of meetings rooms, boardrooms, prayer rooms and an experience centre to host customers. The project was successfully completed within the 16-week programme (that included procurement), on budget and was inaugurated by Crown Prince, Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum on 17 March 2017.









"From the main management to the commercial team and the team on the ground we have received continuous great service beyond and above the final delivery of the new office. We have been delighted by the choice of ATS as the general contractor for this project and can only recommend them as a trustful, supportive and extremely reliable partner for any such projects in the UAE."

Peter Baumann Global Facility Management Head of Projects EMEA





The Interiors and Building divisions of Al Tayer Stocks recently completed a joint project at The Deira City Centre's (DCC) Vox Cinema for cinema operators Majid Al Futtaim. The cinema expansion project included a complete internal demolition, the removal of a roof section of the DCC Mall, and the internal re-configuration of the area including creating a new roof at a higher level using steel frame and concrete slabs.

Once the challenging building expansions were completed the ATS Interiors team commenced the fit-out works which included nine new cinema auditoriums, including a MAX Auditorium which now houses the largest screen in the Middle East; the entrance concourse, washrooms, kitchens and all back-of-house areas. This was completed in record time.

"It was a challenging project, which involved numerous design changes motivated by 'As-Built' conditions; and included working in a

live retail environment with the accompanying logistical constraints of working in an incredibly busy area of Dubai," says Ray Fleming, senior project manager for ATS Building. The completed project was a huge success resulting in an incredibly happy client. "We have continued our strong relationship with our clients Majid Al Futtaim and are pleased to have completed further Vox Cinemas across the region," concludes Thomas McGuiness, project manager ATS Interiors.

Captions:

- The 550-seat Vox Max Screen.
- The main foyer of the new Vox Cinema
- A standard cinema screen in the new Vox Cinema.
- The Gold lounge area.







Construction of second

mall in Matola

progressing well

Source: Tim Stow, SS Construções senior contracts manager

Construction of the New Novare Matola Mall in Matola is progressing well, and is on schedule for early November 2017. This is the second retail project currently being constructed by SS Construções, with the other being the Marginal Mall, located 20km from the Matola Mall.

Matola is the second most populated city in Mozambique with an estimated residential figure of just under one-million. With its modern port, the area is also deemed to be the biggest industrial area of the country.

This newest addition to Mozambique's bustling retail arena, the New Novare Matola Mall, has already expanded from the original planned size due to strong retailer demand, and will be anchored by a 6 500m² large Premier SuperSpar.

"The flow of information and resolving of queries has presented some challenges, as the consultants are all based in Cape Town," says senior



contracts manager Tim Stow. "However, we have with determination and the use of technology been able mitigate any delays."

The earthworks portion of the project, consisting of a 25 000m² mall terrace and 50 000m² of roads and parking, began on 1 April 2016 and was completed on 1 July 2016. The main contract for the completion of the retail mall and parking then commenced on 5 July 2016 and is scheduled for completion on 5 November 2017.

Complex, multi-storey building constructed for

S&C Imobiliaria Limitada

Source: Luis Gaspar, SS Construções senior contracts manager

A high-tech six-storey office building is currently being constructed in the prestigious up and coming business node of Somershield in Maputo. This is the second phase (Phase 2) of a bespoke building that was developed by S&C Imobiliaria Limitada, with the aim of attracting tenants from the emerging Mozambican oil and gas sector.

The new six-storey building will add an additional 4 000m² of office space to the first phase (Phase 1) of this development, a six-storey high building, that was completed by SS Construções in 2012.

The building is situated on a busy road within a developed area where it is being constructed on a very steep embankment. In order to make space for the parking levels, excavations need to go three storeys underground. The soils could not be held back by use of temporary anchors, therefore a top-down system was designed, whereby Vary Kelly piles were utilised for the approximately 20-metre deep piling.

Excavations were undertaken in stages so that construction of the structure would not be delayed. After the first two floors were excavated, the slab was poured and the building was constructed from the 'minus-two level' upwards, while the rest of the excavation took place under the slab.

The facades comprise of glazing and the parking level walls have a gunnite finish. The interior of the building, which is to be accessed through the adjacent Phase 1 building, has a mix of round and square columns, most of which have been constructed off-shutter.

"The building is being constructed for a client that we have worked for before," says senior contracts manager Luis Gaspar "and once again we are aiming to impress with the high levels of safety and excellent quality that have become synonymous with the Stefanutti Stocks brand here in Mozambique."

The new building, once completed, will stand six storeys high, three-and-a-half floors of which will be used for office space.





A contracts manager's perspective on construction at the

Kitwe Hotel Freedom Park development

By Dawie Stokes, Stefanutti Stocks Construction Zambia contracts manager

Stefanutti Stocks Construction Zambia started negotiations to construct the Kitwe Hotel Freedom Park project for Mukuba Property Development Company Zambia Limited in 2013. The site team was so eager to start with construction of the contract that when the client gave the contractual start date of 1 December 2016, we were already two months ahead of programme.

Then the rain came. Each and every day, and some days a 40mm downfall within 15 minutes was not uncommon. Mother Nature must have thought that the rain was not a big enough challenge for us, as we then found a natural spring, running straight through the middle of our site. While in South Africa our colleagues were praying for water, in Kitwe we had more than we could handle. We were even warned not to wander too close to the stream at the bottom of our site, as it looked like an ideal habitat for a basking place for crocodiles.

The Kitwe Freedom Park development consists of a Garden Court Hotel, two office blocks, a restaurant and external parking. Our project scope includes the geotechnical, bulk earthworks as well as the building component of the development.

The piling was undertaken by Stefanutti Stocks's Geotechnical division, and these were installed and tested by the 2016 Christmas break. One of the big challenges we faced during our bulk earthworks operations was procuring the dump rock that we needed as a founding layer on top of the clay and water.

When word got out that Stefanutti Stocks required dump rock it became the most sought-after commodity in town, with prices fluctuating by the hour. We spent Sunday afternoons driving around the African bush trying to locate old mine heaps in the hope of finding blast rock. Negotiations became a full-time job as yesterday's order mysteriously vanished off the face of the earth, only to reappear tomorrow with a higher price tag. Zambians are an extremely friendly nation, but like all of us, they too need to make a living.

In January 2017 the construction of the foundation and pile capping began. Of course the rain slowed us down but everybody was eager to work and make progress.

The contract completion date is 1 June 2018, and though this is more than a year away, every day still brings its own challenges. These vary from establishing a teleconference connection to SA for a virtual meeting with the project team, through to the foreman on site telling one he can't find a plaster float in town.

Housing comes at a premium on the Copper Belt, but fortunately for us, the copper prices are down right now, which makes our housing a bit more affordable. The site team 'from abroad' includes colleagues from East London, George, Tzaneen and Johannesburg. We have all settled in well, and assumed our various roles in the house - Vernon Hogan is in charge of security, Willie Retief is in charge of meals, although his propensity for the local carpenter worm delicacy is not being well-received, and we are spending a fair amount of time at the local Memorable Order Of Tin Hats (MOTH) club.

High-profile project under construction for

Swaziland Revenue Authority

Source: Nomcebo Mamba, Stefanutti Stocks Swaziland site agent

The new Swaziland Revenue Authority (SRA) Headquarters in Ezulwini, Swaziland is being constructed by Stefanutti Stocks Swaziland, that commenced work on the contract in September 2016. This profound, high-profile project is being undertaken for the Swaziland government, and its complexity has seen the appointment of specialist professionals including a fire engineer and a structural façade engineer, to name a few.

Construction scope

Rapid impact compaction was completed on all platforms prior to the installation of 1 153 self-drilling anchors. These will support specialised reinforced concrete foundations (pile caps), columns and concrete slabs. The structures are all in reinforced concrete, beams, columns and slabs.

The main structure comprises of a three-storey office building with a ground floor, a parking level and an auditorium with basement storage; as well as a three-level service centre with public areas, the IT centre and a canteen. The roof will consist of steel trusses made up of long-span steel sheeting.

The external fascia includes aluminium bonded panels, glazed aluminium walling, natural stone cladding and plastered and painted walls.

The internal finishes include laid ceiling panels, plasterboard and skimmed ceiling, plastered and painted walls, ceramic tiled or carpeted floors. Natural stone feature panels are included on certain prominent areas. Aluminium windows will be glazed with solar shield glass.

Services include air-conditioned ventilation, access control to all areas, fire suppression equipment, a public-address system, lifts, standby power and task lighting. The building will also be supported by data cabling and clean power.

The external works consist of the main access road along the boundary from the MR 103 as well as two internal distributor roads, one for public access and the other for SRA staff. Open on-site parking will cater for visitors.

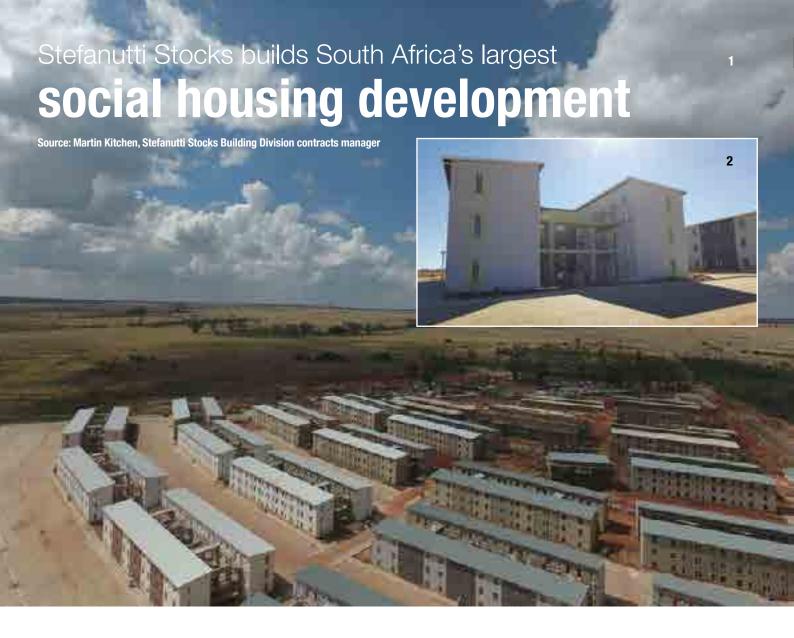
The location of the new SRA headquarters is prone to storm water discharge from the adjacent hill as well as neighbouring plots, so the landscaping will include small wetland areas to attenuate the effect of the storm water. Initially foul water will be processed on site but a connection to the main Ezulwini sewer reticulation system will be provided.

Safety

There are currently about 110 people working on site, a number which will increase as subcontractors begin their scope on the project.

Since work commenced the site has achieved a Lost Time Injury Free Rate (LTIFR) of zero, and safety audits conducted by COMPRAQ have scored between 90% - 93%. In April 2017 the site was successfully audited for OHSAS 18001.





The Flamwood Social Housing Development, located in Klerksdorp, is currently South Africa's largest Community Residential Unit (CRU) development under construction, and the first CRU being built in the North West Province.

The project is being constructed by Stefanutti Stocks's Building Division for Instratin Property Developments. The client has, since construction commenced in November 2015, awarded Stefanutti Stocks a further social housing project in Devland, Soweto. "I believe the new project award, has come as a result of the good relationship that we have built with Instratin, which was born out of the combined team-effort by all of our site and office-based colleagues," says contracts manager Martin Kitchen. "We have been able to over deliver on our client's expectations on the construction and production front through value engineering, as well by being able to address technical issues and offer them real solutions."

The Flamwood development consists of 50 three-storey buildings which make up 25 blocks. Across these are a total of 1 168 residential units including bachelor units, all the way through to three-bedroom units. The residential development also includes an administration building as well as a small commercial area consisting of three small shops and a crèche for the use of the residents. Stefanutti Stocks's contract includes all external access roads, as well as the construction of a new bridge, and the upgrading of a three-kilometre stretch of existing sewer lines, in order to accommodate the new development.

Part of the site is situated in a wetland area and managing this and the challenges that it poses have been quite interesting. "We were initially not aware of the wetland when construction began, and once we discovered it, we had to conform to stringent environmental stipulations to work within the protected area," explains Kitchen. The bridge and access road has now been completed with minimal disturbance to the surrounding areas, which has been left in the same condition it was

prior to construction commencing. Stefanutti Stocks has been able to maintain a rating of above 95 per cent on its environmental performance for the duration of the project. This was largely contributed to by the management and methodologies of working in the wetland area.

"The team as a whole has worked extremely hard to get to the point we are currently at," says Kitchen. "Considering that many of our foremen on site are still young and inexperienced, they have all done an outstanding job of getting involved and learning at a rapid rate - especially on a project of this size.

"This individual growth was made possible through the guidance and support from senior personnel on site, who took the time to lead and teach the new generation. This is also a key contributing factor to our strength and dedication as a unit, which in turn have helped us to progress to this stage of the project, with very few issues to deal with."



One person worth a special mention is Denise Barnes, who started this project as a cadet foreman and has grown very positively over the last year and a half. She is currently participating in Tjeka training as part of her skills development, and in addition to doing very well on the course, she is successfully implementing the knowledge she is acquiring at Flamwood, to the benefit of the site.

Flamwood is scheduled to be completed in November 2017 and is currently at 75 per cent completion with regard to the brickwork on 44 superstructures. The bridge and external access road has been completed. Ten blocks (20 buildings) are at final handover stage, and all other work is progressing well.

"Although this project has had challenges, we as a team and as a company have been able to showcase Stefanutti Stocks Building's ability to take on large projects with confidence, and to make a success of them," concludes Kitchen.

Captions:

- 1. An aerial view of the Flamwood Social Housing Development.
- One of Flamwood's completed blocks.
- 3. The culvert bridge that is situated within the wetland.



Building Division constructs for

Johannesburg Social Housing Company

Source: Ruan Le Clus, Stefanutti Stocks Building Division site manager

The Stefanutti Stocks Building Division is currently building a social housing project in Turffontein for the Johannesburg Social Housing Company (JOSHCO). Construction started in July 2016, and is due for completion in May 2018.

The development is situated in a relatively run-down residential area in Johannesburg South, and consists of a total of 528 one- and two-bedroom units, spread across fourteen three- and four-storey buildings.

Towards mid-April the project was approximately 30 per cent complete and slightly ahead of programme, with a Lost Time Injury Frequency Rate (LTIFR) of zero.

"Once completed the fourteen new buildings will add a modern and aesthetically pleasing feature to the area," says site manager Ruan Le Clus. "As this is the first time that we are undertaking a project for JOSHCO, we aim to impress them with our quality and execution, and hope to be considered for future work opportunities."





Mercedes Benz

awards design & construct of logistics building to Stefanutti Stocks

Source: John Dorning, Stefanutti Stocks Building KZN managing director

Two of Stefanutti Stocks Building's divisions (KwaZulu-Natal and East London) have begun working on the design and construction project (turnkey) for Mercedes Benz South Africa (MBSA). The East London-based project was awarded to Stefanutti Stocks and its design consultants AECOM, as a fixed price contract, with Stefanutti Stocks undertaking the full package.

The contract, in joint venture with Axsys and Botani Construction, runs from March 2017 through to June 2018, and the first milestone was met mid-March, with the submission of design drawings to the Buffalo City Council for building plan approval.

Stefanutti Stocks has enjoyed a long relationship with the motor trade that has seen the group constructing facilities for a number of well-known vehicle brands. These facilities range from production facilities, body shops and parts warehouses all the way through to showrooms. "We have previously built a body shop for Mercedes Benz South Africa in East London, and are looking forward to further cementing our relationship with MBSA together with our partners AECOM, by delivering a world-class logistics facility," says John Dorning, managing director of Stefanutti Stocks Building KZN.

"Our commencement on site has started with our crews breaking ground on 6 April 2017, and with most of the design concluded, it's now up to us to construct - our main objective is to be a solution for MBSA," Dorning concludes.

Captions:

- An artists impression of the Gate 2 entrance to the new Mercedes Benz South Africa building in East London. An artists impression of the Mercedes Benz South Africa logistics building in
- East London.
- A Google map image showing the logistics building to the top right, and the Gate 2 complex to the bottom.
- An aerial artists impression of the logistics building to the right, and the Gate 2 complex to the left.







RPM safety officer conference embraces

excellence in execution

By Clare Krämer, Stefanutti Stocks RPM business unit HSE admin manager

This year the overall theme of the annual Roads, Pipelines & Mining Services (RPM) business unit Safety Officers Conference was the "Founders Mentality". In short, the sentiment is that we should approach the work we do for our company as though we own it, and consider the impact of all our decisions and actions as though they were impacting our own business.

A priority

Occupational Health and Safety as well as the Environment are a top priority at Stefanutti Stocks, as they directly impact on our people, one of our most valuable assets. The Safety Officers Conference provided the platform to communicate a number of key RPM-specific safety topics, including:

- New policies and procedures;
- RPM Occupational Health and Safety;
- RPM Environmental targets and objectives;
- New modules on S@S, an internal OHS and Environmental Software System designed to cater for the needs of all the business units within the Group. This system focuses in particular on building, construction and mining activities.

Systems @ Stefanutti Stocks (S@S)

As the S@S system is constantly under development these informal safety officer training days are scheduled, in order to introduce new modules and to explain the thinking behind their implementation. In the past these get-togethers have also resulted in the manifestation

of a number of new concepts and strategies that support continual improvement across the group.

Discussions on setting site-specific targets and objectives are actively encouraged, as well strategising on how sites can meet the business unit's targets and objectives, AND meet the Stefanutti Stocks group targets and objectives.

Knowledge sharing

As the RPM business unit's geographic footprint reaches far and wide, there are few opportunities for personal interaction between safety officers and their counterparts. To ensure that an ideal learning and sharing environment was provided the Riverside Lodge in Muldersdrift, a quiet and peaceful venue was selected for the conference.

The conference also presented a forum for safety officers and environmental representatives to share OHS and Environmental challenges with one another. New ideas were brought forward and resolutions to challenges previously experienced were discussed.

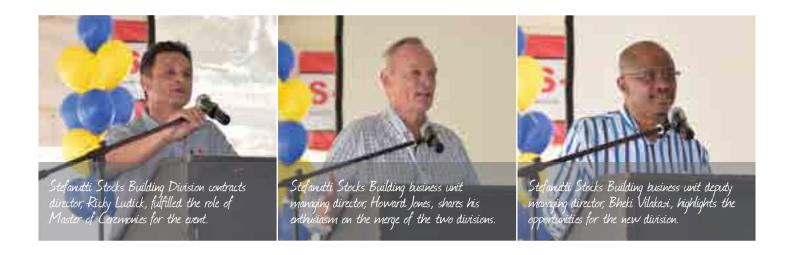
Furthermore, the conference facilitated interaction between divisional directors and safety officers, who were given the opportunity to discuss any achievements across their sites, and how they turned challenges into opportunities.

As not all of the business unit divisions are construction-oriented, this created the opportunity for broader knowledge sharing. For instance, the Mining Services division was able to share a wealth of knowledge in terms of codes of practice (COPs), new legislation, the Mining Health and Safety Act as well as various Safe Work Procedures, Planned Task Observations, Job Safety Analysis and Risk Assessment to name but a few.

The Roads & Earthworks division focused on the Occupational Health and Safety Act, Lifting and Temporary Works as well as the various legislative requirements that one would not generally be exposed to in a mining environment.

The Swaziland, Zambia and Nigerian divisions focused on the differences in the country-specific legislation and the complex issues that can arise when South Africa's OHS Act is used (as a minimal company requirement and best practice) in countries whose Occupational Health and Safety legislation is not as comprehensive as South Africa's.

After energetic discussions all conference delegates attended a braai where they got to know a little more about each other. After spending the night and enjoying a hearty breakfast, it was back to work as usual, with the intention of implementing with a 'Founders Mentality.'



Newly merged Building Division

marks the occasion with its employees

By Petro Geldenhuys, Stefanutti Stocks Building Division personal assistant

An event to mark the merging of the Stefanutti Stocks Building Inland and Stefanutti Stocks Housing divisions was held at Stefanutti Stocks's Barbara Road offices on the 24 March 2017.

The event was expertly hosted by master of ceremonies Ricky Ludick (Stefanutti Stocks Building Division's contracts director) who welcomed everyone before introducing Dietmar Scriba, the newly merged division's managing director. Scriba then presented an overview of the division and the strategy going forward.

The contracts directors were given the opportunity to introduce themselves and the projects that they are responsible for. The Building business unit managing director Howard Jones and deputy managing director Bheki Vilakazi addressed the audience describing the changes and highlighting their enthusiasm about the merge and the way forward.

It was then award time, including an impressive list of long-service awards, that were handed over by Dietmar Scriba and Ricky Ludick.

This was followed by lunch and music from Dieter Uken which saw some peopling taking to the dance floor, while others continued socialising with their colleagues.







Noluthando Skhosana, Tumi Masetle, Charity Mthabini, Mpho Modiga, Mapule Modiga and Palesa Maputle take to the dance floor.



Stefanutti Stocks Building Division celebrates

Long Service

By Petro Geldenhuys, Stefanutti Stocks Building Division personal assistant

Ricky Ludick, Stefanutti Stocks Building Division's contracts director, celebrated his 20-year anniversary this year, and was given the honour of handing over long-service awards to a number of staff members who have worked for the company for over thirty years!

These included:

- Cathy Ndebele, 31 years
- Ranoko Malebo, 32 years
- Macton Ngoepe 32 years
- Suzy Petzer, 33 years
- Vusi Mahlangu, 34 years
- Frans Matlou, 34 years
- Willie Mahlangu, 34 years
- Innocent Khumalo,34 years
- Richard Baloyi, 35 years
- Aaron Tlomatsane, 36 years
- Renee Schaup, 40 years!
- Petrus Mthombeni, 40 years!

Captions:

- Stefanutti Stocks Building Division SHEQ manager Andreas Krafft handed over a Safety Award to staff from the Pholela Special Needs School project in Bulwer. Pictured from left to right are Andreas Krafft, Piet van der Merwe, Ivan van der Merwe and Hilton Maseko
- Stefanutti Stocks Building Division contracts director Tinus Kruger handed over a 5-Star Award from the Master Builders Association (MBA) North to the deserving Masangita contract management. Pictured from left to right are Tinus Kruger, Nhlanhla Mpofu and Derek McDonald







Pictured are the recipients of long-service awards for over thirty years of service. In the front row, from left to right are Petrus Mthombeni - 40 years, Suzy Petzer - 33 years, Innocent Khumalo - 35 years, Ranoko Molebu - 32 years, Cathy Ndebele - 31 years and Vusi Mohlangu - 34 years. In the back row, from left to right are: Ricky Ludick, Renee Schaup - 40 years, Richard Baloyi - 35 years, William Mahlangu - 34 years, Macton Ngoepe - 32 years, Dietmar Scriba (managing director of the Building Divisen), Aaron Tlomatsane - 36 years and Frans Matlou - 34 years.

Mentorship programme sees growth in

engineer's career

Source: Chris Tshivhidzo, Stefanutti Stocks Civils alternate contracts director

Chris Tshivhidzo started working at Stefanutti Stocks in 2001, after completing his civil engineering diploma at the Technikon Northern Gauteng (TNG), which is now known as the Tshwane University of Technology or TUT. His first project was working as a trainee engineer, at a weir that Stefanutti Stocks Civils was constructing for the Department of Water Affairs and Forestry.

"In my early days I worked with a few great contractors including Billy Howes, Shaun Butler and Martin du Rand. Under Shaun Butler my career progressed from site engineer, site agent, and senior site agent to project manager. During this period I attended the in-house Site Leadership Development Programme as well as various concrete courses.

"About ten years after first starting to work in the industry, StefanuttiStocks enrolled me in the Construction Management Programme at Stellenbosch. This intensive and elite course entirely changed my mindset on how we contract in South Africa - you have to put all the negatives to one side, look at the positives and weigh in on those when you are gunning for new projects. It felt like a momentous occasion, intensified by the birth of my daughter a week before I returned home from the Cape.

"During the mentorship programme which began in 2014, I began working with Mike Stevenson, my contracts director, and Graham McIntyre, our division's commercial director. We identified the key competencies that I wanted to focus on, which were costing and business development. My goal was to become the person who bring sin a project and then manages it all the way through to completion.

Each of our sites represents a small business within the bigger Stefanutti Stocks Civils business, and ensuring that my business was profitable was of course also a key objective of mine. We covered a lot of operational aspects during the programme, but a key aspect that stuck with me was what we learned about the need to be accessible on site, to encourage communication, engage with people and develop better employee relationships.

"The mentorship programme was a massive wake up call for me, in that I realised that I was underutilising those parts of my brain that dealt specifically with communication and listening. With regard to operational aspects on site with different clients, I always made peace with the operational and safety requirements of our clients, and tried to understand their challenges. This included understanding the pressure our clients were under, in particular the parastatals, to deliver what they had been mandated to deliver. My positive mindset meant that I actually embraced working in difficult environments, as I thrived on finding solutions.

"In April 2016 I was promoted to senior contracts manager, reporting to Mike Stevenson. In March 2017 I was appointed as alternate contracts director. These promotions have certainly motivated me to work even harder to fulfil my career goals.

"The mentorship programme definitely grew my business skills and confidence, and it was a career coup when we were awarded the Cleveland project by PRASA, as it was the first time I had fulfilled the role of a successful bid leader. It has also helped me reach a point where I can capably mentor young BEE companies, such as 4Phase, our joint venture partner on the PRASA project (see p36). I'm looking forward to playing my part in their story."





Stefanutti Stocks Coastal

builds some team spirit!

By Janette Jeeves, Stefanutti Stocks Coastal executive secretary

To mark the merging of two Stefanutti Stocks divisions into Stefanutti Stocks Coastal, a team building event was held on 25 November 2016 at the Emoyeni Guest Lodge & Conference Centre in Camperdown. The event was hosted by "Team Attitude" and was entitled "inviting hearts and minds to connect through fun invitational team activities."

It was a mammoth logistical task getting everyone to the venue from nearby (KZN) and afar (Port Nolloth, East London, Bloemfontein, Cape Town...). Somehow we managed without too many glitches, and feedback from many of our 209 colleagues was that they left feeling part of a very positive, energised and focused team. Their excitement for what lay ahead removed the trepidation many had when they heard the news of the merger of the Civils KZN and Marine divisions.

After welcoming them and a brief overview about the merged division by Stefanutti Stocks Coastal managing director Matthew Horwill, the active part of the programme began. The field was broken up into nine teams, all of whom were given coloured bandanas and asked to create a banner showing their chosen team name. The teams then went on to engage in a range of activities that supported the concept of connectivity and team work.

After a braai and refreshments, long service awards were presented to a number of employees, including:

- Norman Mthiyane 30 years,
- Clifford Msane 20 years,
- Rowen Chetty 15 years, and
- Bulelani Mabuya, Ian van Neel, Bertus Jacobs, Janette Jeeves, Patrick Sebego, Vuyo Sithole, Mike Majola and Imraan Milase, all whom celebrated their 10- year anniversaries recently.

The venue was superb and the food awesome. Faces were put to names, friendships were formed and the day was voted an allround success.







Iron lady

finishes East London's 70.3 Ironman on a high note

By Gabriella Bryant, Stefanutti Stocks Mechanical & Electrical business unit compliance officer

On the 29 January 2017 I completed the Ironman 70.3 East London in a total time of 08:20:57. This, after only four months of gruelling and committed training, a knee cap that kept dislocating, many visits to my physiotherapist, and a lot of encouragement from friends, family and my fiancé.

Prior to the race I had participated in only a few cycle races, attempted to run no further than five kms and done one or two short open water swims. I was anything but an Ironman athlete, and in reality I had only taken up sports of any kind a mere three years ago - before that I considered scrap booking a sport.

On race day we were up before 4 am, had breakfast, checked the last few things and headed down to the start line. My best friend and I completed the ocean swim together - we free-styled the full 1.9kms, chatted occasionally and were pretty much having the best swim of our lives. I loved every minute of it.

Next came the cycling event and the notorious East London winds were out in full force and it was baking hot. I came in from the cycling event 56 seconds before the cut-off, badly sunburnt, tired, and hating every second of my life.



As I headed out to start the 21.1km run I came to the conclusion that I was over all of it. About three kms in my fiancé and dad appeared and their encouragement convinced me to try a little harder. The next 16 kms were an emotional roller-coaster - I cried, I laughed, I sang, I screamed and somewhere along the way started enjoying the race again. My bum knee kept me from running, but an old granny style speed walk was doing the trick.

As I got closer to the red carpet many of the other athletes, supporters and my friends and family started clapping and screaming my name. It is hard to describe the moment that I crossed the time line, turned around and saw my time on the board - I had made it!! I had finished the East London Ironman 70.3 with only a few minutes to spare!

Summiting Kilimanjaro

no walk in the park!

By Jason Audie, Stefanutti Stocks Roads & Earthworks (R&E) sub agent

My ten months stint for Stefanutti Stocks R&E in Kenya was coming to a close, and I decided that I would most likely not be this close to being able to tick off one of my bucket-list items again, and so decided to climb Kilimanjaro before heading back to South Africa.

As a keen runner I thought the hike and climb would be a walk in the park - and it was... for the first two days. I was with a guided group made up of all shapes, sizes and ages and we climbed about 1 000 metres a day. I recall noticing an elderly Russian gentleman limping up the path and guietly thinking to myself that he didn't stand a chance an opinion I had to humbly review a few days later.

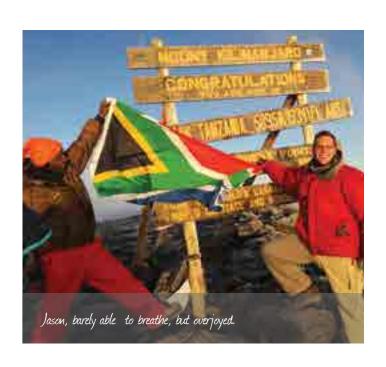
The night before the summit was spent at 4 800 metres and I was shocked by how bad I felt. In freezing weather we lay hyperventilating to get sufficient oxygen into our blood. I had a headache, hadn't eaten all day due to altitude sickness, couldn't sleep and wondered how this could be classified as a recreational activity.

At around midnight the sleep deprived group departed camp and I joined the trek. Hours later, and about twenty metres from the top, the Russian gent drew level with me, and we ended up reaching the summit together... It didn't matter what shape, age or size you were - the minus twenty degree temperature and the 5895m altitude

completely levelled the playing fields. As long as you could hang onto your guide, Slowly Slowly ("Pole Pole" in Swahili) you would make it.

On reaching the summit, I've never before grappled with so many mixed emotions. I was extremely cold and couldn't feel most of my body. I was under-nourished and utterly spent while at the same time feeling on top of the world, but simply did not have enough air to release the tears of joy. I drank my whisky, posed for the photograph and headed down as fast as possible to the sea of air waiting for me below.

Would I do it again? Of course!



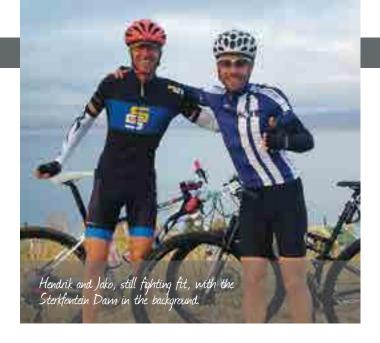
What a ride joBerg2c turned out to be!

By Hendrik Bester, Stefanutti Stocks Building KZN land surveyor

The joBerg2C was a truly amazing experience! I teamed up with Jako van Heerden (from Kantey & Templer) from Kloof to ride in the vet men's category of the Old Mutual joBerg2c mountain bike race. We set out on the nine-day mountain bike adventure with the aim of getting onto the vets podium.

Stage 1 started on Friday 21 April at Karan Beef, just outside Heidelberg. It was a relatively uneventful, neutral stage of 113km cycled to Frankfort. During stages 2 and 3, from Frankfort to Reitz (89km) and Reitz to Sterkfontein Dam (125km), we experienced a few mechanical issues which unfortunately cost us some time. We found ourselves placed seventh in the vets category, but after finishing 13th overall, and as the first vet team in stage 4, which took us from Sterkfontein Dam to Em'seni, our hopes were up! Stage 5 was a long, tough ride from Em'seni to Nottingham Road and we covered the gruelling 120km in 5 hours and 11 minutes.

After placing 14th overall and finishing as first vets team in stage 6 we were feeling strong and motivated going into the last two racing



stages. Fifty kilometre into stage 7 and, while leading the vets, Jako had a bad fall. After spending some time with the medics we finished 40 minutes behind the first vet team. Jako was determined to push through the pain and we finished stage 8 in a rather slow 5 hours 44 minutes.

Jako's broken left hand was operated on, on the Saturday that followed the race. Fortunately his knee was not as bad as we first thought. After all of this drama, the two of us still placed as 8th vet team and 31st overall. Over the nine days of the race we had spent 40 hours and 7 minutes in the saddle covering approximately 900km. It was an incredible race, and something I would highly recommend for every passionate mountain biker!

Sadly, it's all over now, and I am not sure how I am going to settle back into 'normal' life again?

Only one will emerge

victorious

By Debbi Kannemeyer, Stefanutti Stocks Roads & Earthworks estimating assistant

Indoor Action Cricket provides 70 minutes of fast-paced cricket action play, and offers a perfect, high-pressure and explosive environment that refines corporate team dynamics.

The Stefanutti Stocks Roads, Pipelines & Mining Services (RPM) business unit pursues initiatives that promote team camaraderie and this year contracts director Steve Van Der Walt introduced the annual Indoor Action Cricket Annual Battle of the Business Units. The highly competitive spirit amongst the business units was bound to result in a hotly-contested tournament and tons of fun!

This initiative would see several social games culminate in the four Business Units sending their best men and women, from across the country, from various levels and functions, to engage as a coordinated, tight knit, rock-hard team and participate in a set of round

This epic showdown of semi-finals, held on 4 May 2017, saw Structured Chaos take down the M&E Isando Warriors with 15 runs. Uber Sonic RPM launched a 20 run victory against the Blazing Builders.

The finals, set for late May 2017 will see the M&E Isando Warriors take on the Blazing Builders for 3rd and 4th places, while dark horse Structured Chaos and Uber Sonic RPM will go head-to-head for a nail-biting finale to reveal 2017 1st and 2nd placed contenders in the annual Battle of the Business Units.



There can only be one winning team to walk away with the exclusive bragging rights of Battle of the Business Units Champion 2017.

Roads, Pipelines & Mining Services Business Unit

Managing director: Russell Crawford

Tel: +27 11 552 4200

Divisions:

Stefanutti Stocks Roads & Earthworks

Tel: +27 11 552 4200

E-mail: earthworks@stefstocks.com

South Africa - managing director: Russell Crawford Capabilities:

- Bulk Farthworks.
- Road construction and rehabilitation.
- Crushing and screening.
- Asphalt manufacture and paving.
- Fibre-optic infrastructure.
- Dam construction.
- Mine infrastructure and development.
- Township infrastructure.
- Asphalt paving manufacture.
- Chip and spray seals of bituminous products.
- Slurry seals.
- Demolition.
- Directional drilling.
- Landfill construction and blasting.
- Large/small diameter welded steel pipe.
- HDPE pipelines.
- Ductile pipelines.
- Oil & gas pipelines.
- Pump, mechanical & electrical installations.
- In situ concrete lining of pipelines.

Stefanutti Stocks Mining Services

Tel: +27 11 552 4200

E-mail: miningservices@stefstocks.com

Managing director: lan Ferguson

Contract Mining - contracts director: Freddie Strydom Tailings Management - contracts director: Marco Pasquali Materials Handling - contracts director: Marco Pasquali

- Design and construction.
- Operations & management of tailing facilities.
- Hydraulic mining.
- Open pit contract mining.
- Mine development and planning service.
- Materials handling.
- Crushing and screening.

General Contractors:

Stefanutti Stocks BOTSWANA

Tel: +267 397 4773

General manager: Shaun Cross

Stefanutti Stocks SWAZILAND

Tel: +268 518 5006

Managing director: Shaun White

Stefanutti Stocks ZAMBIA

Tel: +260 211 285623/4

Managing director: Derek du Plessis

Stefanutti Stocks WEST AFRICA

Tel: +27 83 444 5075

Managing director: Michael Welsch

General contracting capabilties:

- Civil works including water treatment works, reservoirs, bridges, among others.
- Commercial, light industrial (eg factory shells) and heavy industrial (eg. sugar mill infrastructure) buildings.
- Agricultural land development.
- Bulk earthworks.
- Road construction & rehabilitation.
- Dam construction.

Structures Business Unit

Managing director: Werner Jerling

Tel: +27 11 571 4300

Email: structures@stefstocks.com

Capabilities:

- Heavy industrial plants, i.e. mining infrastructure, process plants, factories.
- Various power generating facilities.
- Marine construction.
- Geotechnical investigation, lateral support and construction of various piled foundations.
- Dams, concrete canals and reservoirs.
- Slipforming, hydraulic lifting and incremental launching of structures.
- Construction of a broad range of bridge types.
- Effluent, water- and waste-water treatment plants.
- Precast and hybrid concrete structure construction.
- Concrete and general structural rehabilitation, concrete repair and waterproofing.
- Emergency construction and shut-down projects.
- Pre-construction engineering support and assistance.
- Various construction execution models, including:
 - Conventional tendering;
 - Multidisciplinary, design and construct;
 - LSTK and EPC contracts;
 - Collaborative project execution; and
 - Management contracting.

Divisions:

Civils: Managing director: Mark Stannard - Tel: +27 11 571 4300 Managing director: Matthew Horwill - Tel: +27 31 700 1416 Coastal:

Cape Town offices: Tel: +27 21 386 2610

Geotechnical: Managing director: Shaun Butler - Tel: +27 11 571 4300

Mechanical & Electrical Business Unit

Managing director: Vince Ollev

Tel: +27 11 820 4600

Divisions:

Mechanical & Piping - Mining Infrastructure:

Managing director: Marius Botes

Tel: +27 11 820 4600

Capabilities:

- Supply, fabrication and erection of steelwork, plate work, tanks and conveyors (on-surface & underground).
- Supply, installation and corrosion protection of piping including overland lines, pump stations, plant piping and high & low pressure lines (on-surface & underground).
- Installation of mechanical equipment including pumps, thickeners, flotation cells and stacker reclaimers.
- Supply and installation of patented high rate clarifier and sand filters.

Electrical & Instrumentation:

Managing director: Leon Kapp

Tel: +27 11 820 4600

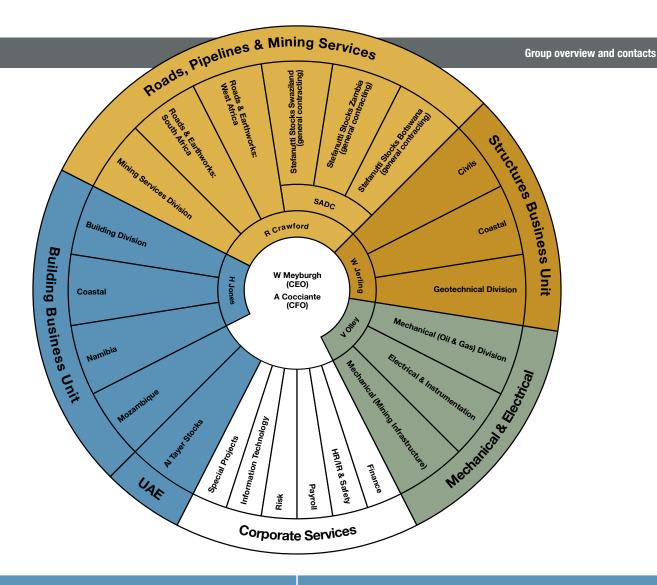
- Electrical supply, installation and commissioning.
- Instrumentation supply, installation and commissioning.
- Maintenance.
- Sub-stations and switchyards.

Mechanical & Piping - Oil & Gas:

Managing director: Jose Faria

Tel: +27 11 820 4600

- Capabilities: Structural steel erection.
- Mechanical equipment installation.
- Pipe-spool fabrication.
- Installation of process piping systems. Shut down & maintenance.
- Painting, insulation and scaffolding.



Building Business Unit

Managing director: Howard Jones Deputy managing director: Bheki Vilakazi Tel: +27 11 820 4600 E-mail: building@stefstocks.com

Capabilities:

- Commercial buildings.
- High-rise buildings.
- Industrial & service buildings.
- Property development facilitation.
- Hotels.
- Healthcare facilities.
- Shopping centres.
- Township and residential developments.
- Mass housing, low-cost/affordable housing.
- Community Residential Units (CRU) and co-operatives.
- Social infrastructure.
- Specialist fit-out.

Divisions:

Building Africa (SADC)

Mozambique - managing director: Lucas Labuschagne

Tel: +258 21 471 604/5/6

Namibia - general manager: Stefan Bothma

Tel: +264 64 405 041

Building Coastal (Western Cape, Eastern Cape, KZN)

Managing director: Howard Schwegmann

Tel: +27 31 700 1416

Kwa-Zulu Natal - managing director: John Dorning

Tel: +27 31 700 1416

Western Cape - managing director: Mauro Donato

Tel: +27 21 386 6336 **Building Division**

Managing director: Dietmar Scriba

Tel: +27 11 820 4600

United Arab Emirates

Al Tayer Stocks

CEO: Jorge Areosa Tel: +971 4 503 4888

Al Tayer Stocks is an interior-contracting and niche building firm that provides turnkey contracting solutions in the UAE and Qatar. It undertakes contracts for a wide variety of blue chip clients for the retail, residential, office accommodation and hotel and leisure industries.



if you can dream it, we can construct it



Multidisciplinary construction group **Stefanutti Stocks** undertakes projects across South Africa, sub-Saharan Africa and the United Arab Emirates. We are committed to achieving nothing less than our mission of **excellence in execution** across all of our projects.

We undertake contracts for the following sectors: Building; Bulk Earthworks & Geotechnical; Energy Generation; Industrial Plants, Oil & Gas; Mining & Mining Infrastructure; Transport Infrastructure; and Water, Sanitation & Pipelines.

