

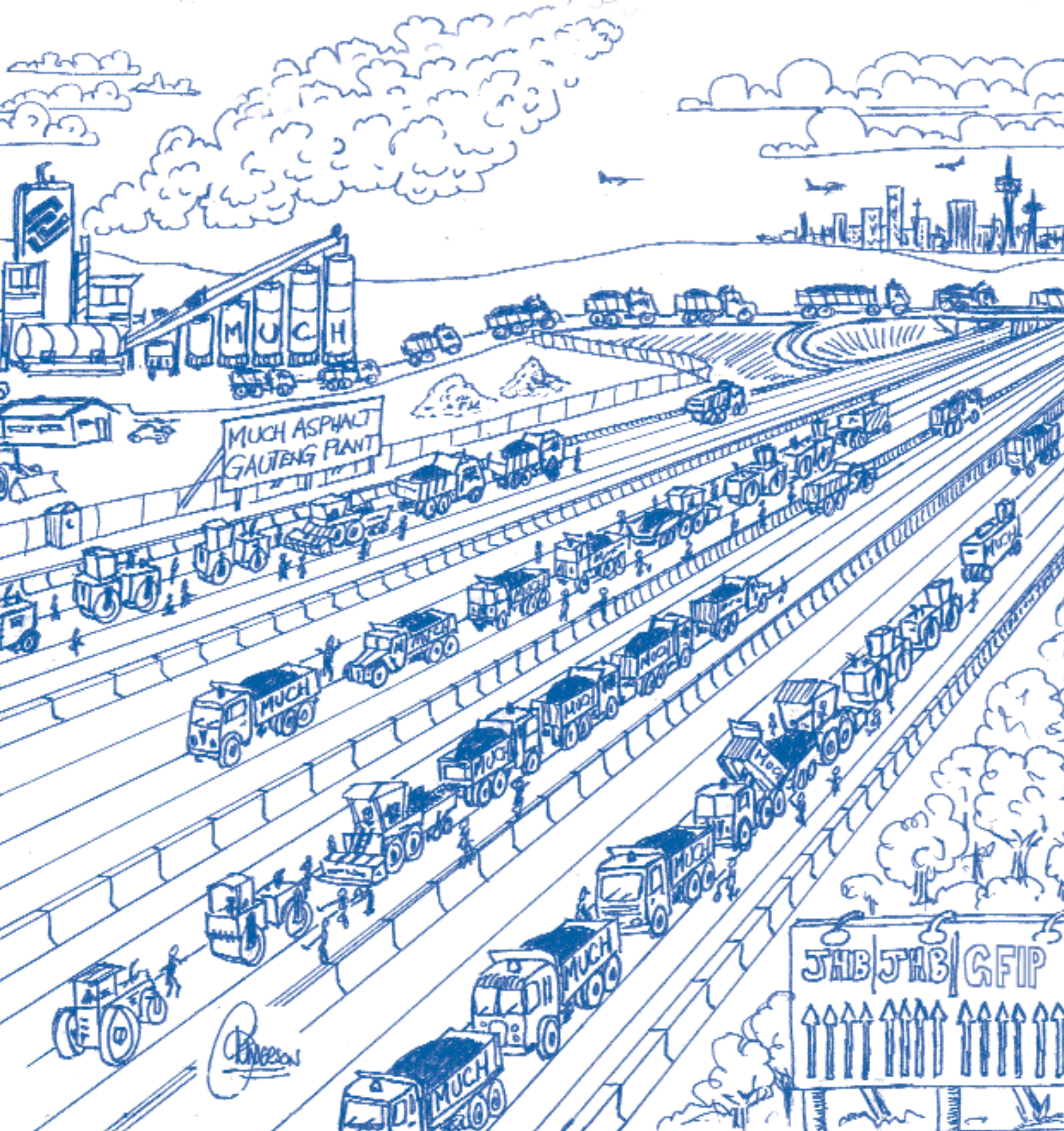


**Much  
Asphalt**

Spring 2008

The road to the future ...

# SurfaceTalk



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A LEVEL 3 BBEE CONTRIBUTOR



A Murray & Roberts company

# Keeping ahead through

# I N N O V A T I O N

What a year it has been! For many South Africans 2008 will end with more questions than answers, both economically and politically. Interesting times indeed but, while the threat of world recession looms, there is still much to keep us positive.

The South African economy is less affected by the current global environment than many others and growth is expected to continue in 2009, albeit slower than expected. Our industry is fortunate as most of the major infrastructure projects planned have already been awarded – the Gauteng Freeway Improvement Project and the R300 & N1 contracts in the Western Cape, among others. These should provide a base load over the next 18 to 24 months, by which time we hope some normality will have returned to the world economy.

We can also take heart from the Minister of Finance's mid-term budget framework, in which he stated: "Over the next three years we will continue to step up investment in infrastructure that will drive long term growth, and we will continue to expand and improve the quality of public services." I am confident that our industry will not only survive the current turmoil but will emerge stronger than ever.

## Innovation

This does not mean we can be complacent. Our strength as a company depends not on external factors, but squarely on our own shoulders. At Much Asphalt we know that innovation is critical to stay ahead in good times and in bad and we encourage a constantly innovative mindset among our employees.

This year has seen many exciting innovations at Much Asphalt. One example is our new plant from Astec in the USA that enables us to use foam technology for the manufacture of warm-mix asphalt (WMA) for the first time in South Africa. This acquisition, described in more detail on page 3, will enable Much to substantially decrease its carbon footprint. Other instances that come to mind are the red asphalt bus lanes on the Durban freeway and our pioneering work in the use of recycled asphalt in the Western Cape.

## Thank you

We would like to thank all our clients for their support in the past year. We take our responsibility not only to meet, but to exceed, your business expectations very seriously. We are encouraged by the



*Much Asphalt chief executive  
Phillip Hechter.*

feedback to our customer service surveys, which indicates growing satisfaction with our products and services. However we still have a long way to go and our efforts towards improvement will continue unabated.

We have heard your concerns around capacity constraints, particularly in Gauteng, and invested more than R50-million in new plants and upgrades around the country that will increase our capacity by as much as 30% in 2009.

All the employees of Much Asphalt must also be congratulated for their dedicated and unselfish support for the company and for our clients. Every one of them can be justifiably proud of their contribution to making Much Asphalt what it is today.

Travel safely over the festive season and enjoy a well-deserved, relaxing holiday.

*- Phillip Hechter*

## Laboratory accreditation extended

Much Asphalt's Central Laboratory in Eerste River, Cape Town, has had its ISO/IEC 17025 accreditation extended for a three-year period by the South African National Accreditation System (SANAS).

In August 2006 we became the first South African commercial asphalt supplier to receive ISO/IEC 17025 accreditation. Alec Rippenaar, manager of the Central Laboratory, reports that the scope of the latest certificate has been expanded to include three more test methods. These test methods enable us to

- a. test for deleterious particles in sand and fine aggregates
- b. test for flakiness index of aggregates
- c. and determine the viscosity of bitumen at elevated temperatures using a rotational viscometer (Brookfield).

All three add value for our clients by helping to ensure product quality.

The next SANAS audit will take place in April 2009 and the Central Laboratory team aims to include at least two more test methods.



The environmentally friendly Astec plant soon to be installed at Much Asphalt in Benoni.



Much Asphalt technical director Herman Marais.

## New technology reduces our carbon footprint

Much Asphalt is gearing up for SANRAL's Gauteng Freeway Improvement Project with new production plants at its Benoni and Pomona facilities that will supply an additional 300 and 250 tonnes per hour respectively. Both are twin drum configurations capable of handling a wide range of different mixes, including efficient use of recycled asphalt (RA), an important requirement in the drive for sustainability of natural resources.

Of particular interest, however, is the plant built by Astec in Tennessee, USA, that is destined for Benoni. This installation will allow us to employ foam technology for the manufacture of warm-mix asphalt (WMA) for the first time in South Africa, enabling Much Asphalt to substantially decrease its carbon footprint.

### Foam technology

WMA is receiving much attention world wide as a technology that saves energy and improves conditions for workers. WMA allows the asphalt manufacturer to reduce the temperature at which the material is mixed and placed on the road through the use of either chemical additives or foam

technology.

"We will be the first South African company to produce WMA using foam technology," says Much Asphalt technical director Herman Marais. "Foam technology as a cold process has been around for some time, but has been used to manufacture bitumen stabilised base course material rather than asphalt."

The Double Barrel Green System being built for Much Asphalt by Astec eliminates the need for additives by mixing a small amount of water and bitumen together to create microscopic bubbles. These bubbles act to reduce the viscosity of the bitumen, improving coating of the aggregate and allowing the mix to be handled and worked at lower temperature.

### Energy saving

Temperature reductions of 20 to 30°C are possible, with the obvious benefits of cutting fuel consumption and decreasing the production of greenhouse gases.

In theory an energy saving of 11% can be achieved with a 10°C reduction in heat. However energy savings of 30 to 35% have been reported due to the reduced heat

losses during the mixing operation. Processes where the aggregate is not heated above boiling point of water have savings as high as 34 to 47%.

Higher recycled asphalt content can be added to a conventional asphalt mix, contributing to the environmental benefits of WMA.

Research has also shown that lowering the production temperature can also drastically reduce emissions, fumes and odours at the plant, improving conditions for workers and paving the way for better relationships with neighbouring industries. There is no smoke and no smell because the light oils in bitumen never reach boiling point.

### Storage and transport benefits

Operational benefits include an increase in plant production and no increase in the cost of the mix. This can be attributed largely to reduced temperature differentials. The greater the differential between the asphalt and ambient temperatures, the faster it cools off. With WMA this differential is low and therefore it cools more slowly. This allows a longer time for compaction to take place, improves density, and the asphalt can be stored for longer, hauled longer distances and used in colder temperatures.

While foam technology will only be available at Much Asphalt Benoni on commissioning of the new plant early next year, the company can produce WMA using chemical additives at all its plants around South Africa. "We are currently investigating the best WMA technologies for each of our operations," says Herman.

## PERSONALITY PROFILE DUDUZILE KUBHEKA



**D**uduzile Kubheka has had to learn fast. She was appointed branch manager of Much Asphalt's Pietermaritzburg operation in January 2008, only a year after graduating with her Bachelor of Science (BSc) degree.

# Duduzile's passion is building communities

"Being young and almost straight out of university, I hope to bring a fresh approach to the business and the people around me. This is not a simple concept at first but once the ball starts rolling I hope we will reap rewards."

Duduzile Kubheka was born in Soweto, matriculated at Mondeor High School in Johannesburg and then took a "gap year" to do community work in various parts of South Africa while considering what direction to take at tertiary level.

In 2002 she started her BSc degree at Wits University, adding a year to her studies with an academic development programme designed to provide students with an introduction to the built environment. "My key motivation was the critical role of this sector in developing our communities."

While studying she also continued her community work through the Wits Volunteer Programme and the Association of Catholic Tertiary Students.

Duduzile's first four years of study were funded by a bursary from the Construction Education Training Authority (CETA). She was awarded a Murray & Roberts bursary in her final year in 2006 and joined Much Asphalt at the end of that year.

"In 2007 I also completed the Murray & Roberts Graduate Development Programme, which included various courses to equip me with non-technical skills for my future career and visits to other group companies to get a better picture of the group and the industries it serves."

At the same time she was training in the plant, laboratory and admin offices at Much Asphalt in Eerste River.

In October 2007, Duduzile was sent to Pietermaritzburg to work with branch manager Brian Mchunu. When Brian was promoted to the board and moved

to Eerste River at the beginning of 2008, she assumed management of the Pietermaritzburg branch with support and help from the then KwaZulu-Natal regional manager Anthony Allen.

"Team work takes continuous effort from the entire team, not only the leader," she says of her new role. "I have found that listening, knowing when to be decisive and encouraging mutual respect are important."

"I would like young people in construction and civil engineering to recognise the opportunities they have to add value to their companies and their industry. It may not be glamorous, but we can help to create positive change in our communities by putting passion into our jobs."

"We spend so much of our time at work, we have to do what we enjoy and what we believe makes a difference."

## KNOW YOUR STATUS

Raj Rajcoomar, Much Asphalt's manager for HSE and quality assurance, reports that a Know Your



Status campaign has been launched to raise awareness of HIV/Aids within the company. The campaign was successfully piloted in Benoni and has since been rolled out throughout the company to educate employees on all aspects of HIV/Aids and to promote participation in the free voluntary counselling and testing for HIV that is made available on our sites. Staff at Eerste River gave the thumbs up to HIV/Aids awareness after the training.





Gearing up for a busy year ahead – the Much Asphalt team at Contermanskloof.

# Two unique projects get underway in Cape Town



Below: Members of the Eerste River team that is hard at work supplying the R300 (back from left): Reggie Ferreira, weighbridge supervisor; Stanley de Goede, workshop manager; Rick Jackson, branch manager; and Daniel Monaila, plant operator; (front from left): Jonathan Daniels, laboratory supervisor; Maxwell Jonashe, weighbridge supervisor; Jimmy Miller, laboratory supervisor; and Jan Beukes, contracts manager.



Left: The Contermanskloof plant, showing the two new recycled asphalt bins installed for introduction of the pre-dried RA after heating of the asphalt for the N1 contract between Koelenhof and the Huguenot Toll Plaza.



Much Asphalt has commenced trials on two challenging contracts in Cape Town: the all important R300, our biggest ever single project in the Western Cape, and the N1 from Koelenhof to Huguenot Toll Plaza, our first major job in the region using recycled asphalt (RA).

Jan Beukes, former chief executive of Much Asphalt and now retired, is assisting us in the management of these important projects.

The vital R300 link between the N1 and N2 freeways, the two major routes in and out of the city, will require placement of 220 000 tonnes of asphalt over a 14 month period. Garth Miller, regional manager of Much Asphalt for the Western Cape, says the contract, awarded by SANRAL to a joint venture between Roadmac and Haw & Inglis, involves milling out and replacing the entire road with the addition of two new lanes in the median.

The Eerste River plant will supply base and

wearing courses, as well as precoated chips. The 17km route has to remain open to traffic at all times.

Trials commenced at the beginning of November in collaboration with the project consultants, SNA Consulting Engineers.

## **Koelenhof to Huguenot Toll Plaza**

The 30km section of the N1 freeway between Koelenhof and the Huguenot Toll Plaza was awarded by SANRAL to Roadmac (Cape). This, too, will be a unique project for Much Asphalt in the Western Cape as a relatively high percentage of RA is specified.

"The slow lane is being deep-milled in both directions," says Garth. "The milled material will then be screened to provide 25% RA for the new 120mm thick BTB on the slow lanes and 15% RA in the wearing course overlay on the entire road surface.

The asphalt will be produced at our

Contermanskloof plant."

"We have to closely monitor the moisture content of the RA when it is introduced after heating and mixing of the aggregate as too much moisture will prevent the aggregate from binding with the bitumen," Garth explains. "So we are using the drum mixer of our Nomad mobile plant to pre-dry the RA, which will then be stored in a closed shed prior to use."

He adds that the RA material on this contract is expected to be relatively trustworthy as it originates from good quality uniform material used in original construction of the road.

Completion is expected within 12 months, during which time Much will supply 125 000 tonnes of material. Vela VKE is the consulting firm responsible for this project.

The Nomad will also be used during this period to ensure continuity of day-to-day supplies to other customers from Contermanskloof.

# Communication



# is the key

Lambert Monoane has always wanted to be an accountant, but he has a talent for developing and motivating others that will one day make him a natural leader.

Lambert joined Much Asphalt in March this year as assistant regional accountant for the Gauteng region. Born and raised in Ladybrand in the Free State, Lambert left home for the first time at the age of 15 to complete high school in Johannesburg, followed by a B Com degree at the University of Johannesburg (formerly RAU). He graduated in 2004 and is now studying towards his post-graduate degree.

In January 2006 he joined Deloitte & Touche as a trainee. During his

two years there he also became involved in coaching and developing new staff and in encouraging teamwork to achieve excellence.

He applied to Murray & Roberts early this year, was interviewed by Much Asphalt, and the rest is history.

He believes communication is the key to a successful business. "We are all here for the same reason and through teamwork we can learn from each other." Job satisfaction and self-actualisation are important to Lambert and he has his heart set on becoming a chartered accountant sooner rather than later.

When not at work, Lambert likes to catch up with friends and family.

APPOINTMENTS

## EDDIE JANSEN VAN VUUREN



Eddie Jansen van Vuuren has been promoted to regional manager for Much Asphalt's outer Gauteng region incorporating Polokwane, Witbank and Bloemfontein. Eddie, who was previously responsible for marketing in the Gauteng region, will remain based in Benoni.

## LEON ALBERTS



Leon Alberts joined Much Asphalt in September as regional manager for Gauteng. He comes with 20 years of experience working for suppliers to the construction industry.

Leon completed a National Diploma in Civil Engineering in 1985. He joined Noel Hunt Geofabrics in 1988 and went on to spend eight years with Tosas. He moved from there to Afrisam as regional sales manager and, most recently, headed up the sales and marketing department at PPC Aggregates for three years.

Leon lives in Fourways, Johannesburg. He plays squash and beach volleyball and is a Bulls supporter. Both he and his wife, Verity, are keen golfers.

"I really look forward to the challenging times ahead," says Leon. "I believe I can make a valuable contribution to the success of this team."

## AYDEN VOLBRECHT



Ayden Volbrecht joined Much Asphalt as HR executive on 1 July after several years of consulting to the company. The human resources portfolio has grown to such a degree that it was becoming increasingly difficult to manage on a contract basis. Based at Eerste River, Ayden is taking steps to ensure that Much Asphalt is well equipped and strategically aligned to tackle major HR issues such as employment equity, BBBEE, leadership development, staff training and development, attraction and retention of skills and employee wellness.

## Obituary: Leon Cloete

Leon Cloete, the branch manager of Much Asphalt Bloemfontein, passed away tragically in a motor vehicle accident on 21 September. Leon joined the company in July 2001 to undergo his in-service training to complete his National Diploma in Civil Engineering. He was appointed permanently in April 2002 as a technician in Benoni. Quiet, but determined by nature, Leon continued to learn and develop and his commitment resulted in his transfer to Bloemfontein as branch manager in 2004. We are sure you will join us in extending condolences to his wife Ruweida and his family.





# New dust busting technology put to the test

Celebrating completion of the new dust-busting baghouse at Pietermaritzburg are (from left): Clive Anthony, air quality officer, Msunduzi Municipality; Raj Rajcoomar, quality assurance manager, Duduzile Kubheka, Pietermaritzburg branch manager, and Anthony Allen, former KZN regional manager at Much Asphalt; and Krishna Singh, project engineer, Msunduzi Municipality.



Above:  
The new baghouse at Much Asphalt Port Elizabeth, showing the dust extraction duct prior to painting.

Investments of R2-million each at Much Asphalt's Pietermaritzburg and Port Elizabeth plants have considerably reduced dust pollution. New state-of-the-art baghouses have been installed at both facilities, replacing old technology to provide much improved dust extraction.

Much Asphalt takes steps at all its

plants to minimise the environmental impact of dust created during the asphalt manufacture process. The new baghouse technology took about six months to install at the Pietermaritzburg and Port Elizabeth plants and is a major improvement over the previous system, according to quality assurance manager

Raj Rajcoomar.

"The municipality can categorically state that since the installation of the new mitigation measures, emissions from the plant have drastically improved," says Clive Anthony, air quality officer at the Msunduzi Municipality in Pietermaritzburg.

## We have rebranded in East London

A new joint venture company, East Coast Asphalt, has been established to serve our markets in East London, Mthatha and surrounds.

The rebranded company runs plants in East London and Mthatha to meet the extensive infrastructure development needs of this part of the country and is able to offer customers improved service, skills and capacity.

One of East Coast Asphalt's first major projects involved production of 34 000 tonnes of material for rehabilitation of the road between Lillyvale and the East London airport. The main contractor is a joint venture between Roadmac Cape and Haw & Inglis. Work is expected to be complete before the Christmas break.

# Help for East Cape technical high school

Much Asphalt's Port Elizabeth branch has just completed a project to help upgrade the Ithembelihle technical school in New Brighton, the only technical high school operating in Port Elizabeth's traditional black townships.

"The plight of the school was brought to our attention by matric maths teacher Gail Terblanche and a visit by Much Asphalt staff confirmed that conditions were less than perfect for the 1 600 technical learners at the school," says regional manager Colin Brooks.

About 90% of the learners at Ithembelihle depend on social grants and are unable to pay the school fees of just R200 a year.

As part of its national programme to assist in uplifting technical skills, Much Asphalt committed its help by supplying a television set and DVD player and installing burglar bars and a security system in the classroom housing the equipment. New chairs were also provided for this classroom. In addition, four classrooms, the library and the staff room were painted and better quality lighting installed.

The upgraded classroom was used for extra maths lessons for matric students from all the surrounding schools during the short September/October holiday so that literature supplied by the university on DVD could be used.





# Mobile plant supplies Langeni project



*A blast cut on the new road from Langeni to the R61.*

A new road linking the Langeni sawmill to the R61 in the pine forested mountains near Gqugqura, some 40km Northwest of Mthatha, will be supplied by Much Asphalt using one of its Nomad mobile plants.

The Eastern Cape Department of Roads and Transport awarded the contract to Rumdel Construction (Cape) and Much Asphalt is contracted to supply Brisk, the surfacing subcontractor. The consulting engineers are Ndondana and MBSA in joint venture.

Much Asphalt will produce and supply 34 000 tonnes of Colto Medium Grade (continuously graded) wearing course as well as 500 tonnes of precoated chips, both using conventional penetration grade bitumen. The mixing plant has been erected adjacent to Rumdel's crushing plant.

Trial mixes were scheduled for the first week in December, with the main work commencing in January 2009.

## Sharing technical skills

Demand for Much Asphalt's workshops on hand laying of hot mix asphalt continues unabated. The workshops are offered as a value-adding service for customers wishing to improve the technical skills of their staff as well as individuals looking for new skills and

emerging contractors. The aim is to establish and maintain a national standard for high quality hand laid hot mix asphalt. The most recent workshop took place at the request of the George municipality in September for its outsourced sub-contractors.



*Hand asphalt training in progress in George.*

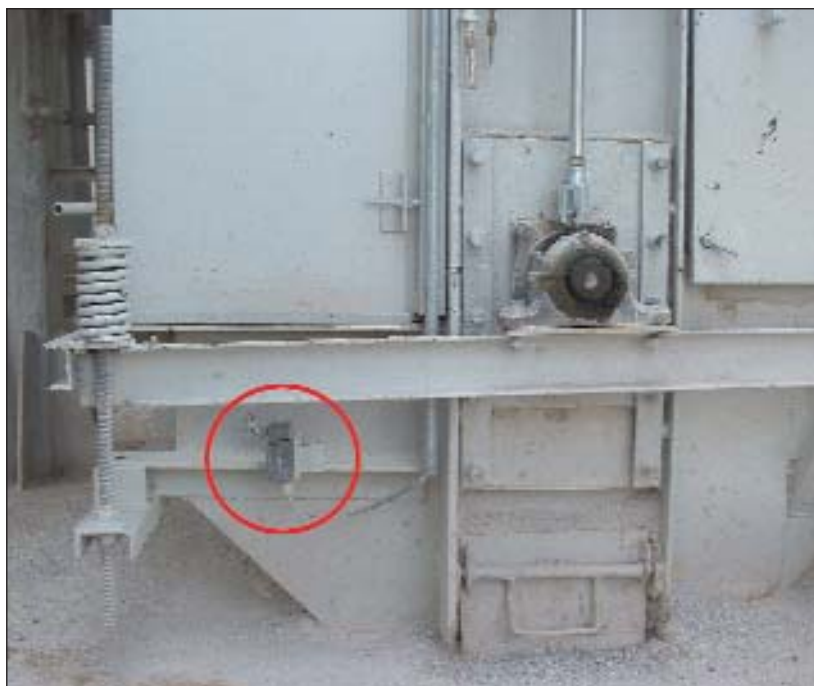


# Partnering with TOR Construction



Much Asphalt's strategy of negotiating service level agreements with the contractors that regularly use its products is resulting in the formation of strong, lasting partnerships with a shared vision of excellence in product quality and delivery. The latest agreement was signed by Much Asphalt's Eastern Cape regional office and George-based client TOR Construction following a workshop involving relevant staff of both companies. Delegates are pictured here during the workshop.

## Innovation saves downtime



Louis Blume of Much Asphalt in Port Elizabeth came up with the idea of installing a limit switch below the tension bar to avoid costly downtime and potential damage on the hot elevator.

Louis' innovation was in response to the problem of the hot elevator chain coming off, which can occur frequently with larger stone size mixes. The operator only picks up the problem when the drive motor trips due to overloading, not only potentially damaging the motor and gearbox, but also leading to at least one hour of downtime to get the chain back on.

The new limit switch is activated and shuts down the elevator and drum system as soon as the tension bar moves down. This results in downtime of less than 20 minutes and also extends the life of the drive motor and gearbox.

"This innovation makes a substantial difference during high production periods when we tend to have a lot of large aggregate mixes," says regional manager Colin Brooks.



We would like to see more industry interaction in *Surface Talk*. In this column we publish comments from our colleagues in the industry.

## What do YOU think?



*Thank you to Gary Catin, general manager of Rand Roads, for his contribution to this issue of Surface Talk.*

The asphalt industry has finally come out of its "slump". The Gauteng province is leading the way with more than 800 000 tonnes of asphalt on the GFIP project and the indications are that there will be more to follow.

Grinaker-LTA, one of the industry leaders through subsidiary company Rand Roads, will have a fair share in this increasing market.

It is pleasing to note that the use of recycled asphalt (RA) in our mixes is slowly increasing. With Much Asphalt playing an active role, we are positive that this will escalate to the percentages used worldwide, thus utilising our resources more effectively.

The trend in first world countries towards a "greener planet" has finally caught on in South Africa. Grinaker-LTA's safety and environmental principles are in line with this trend and it is our belief that more innovative fuel-saving mixes will shortly be the norm in our market.

The question we need to ask ourselves is whether the increase in asphalt volumes is sustainable given the ever fluctuating crude oil prices and the current state of the stock market in the USA.

Nevertheless, I believe we look forward to exciting and challenging years ahead and I have no doubt that as an industry we will rise to and meet the challenges.

## Tim Gradwell moves up the coast to Coedmore

### APPOINTMENT

Timothy Gradwell has been promoted from production manager in Port Elizabeth to branch manager designate at Much Asphalt's Coedmore, Durban, plant. He will replace Greg van Wyk, who moves to our Gauteng operation at the end of this year.

Timothy completed his BTech Mechanical Engineering degree at the Nelson Mandela

Metropolitan University in 2006. He joined Much Asphalt the following year through the Murray & Roberts Graduate Development Programme. Timothy ran the George plant for about seven months while Thandi Mokgalagadi was on maternity leave before moving on to Port Elizabeth.

Prior to joining Much Asphalt, he was actively involved in the design and implementation of assembly lines, supplying to Volkswagen, Toyota, Denel

and General Motors among others.

Timothy comes from farming stock – his father still farms cattle in the Adelaide area of the Eastern

Cape province. His interests include paragliding, cricket (since school days), golf, reading, photography, design and movies.

- Anthony Allen, former regional manager for KZN, has left Much Asphalt to join a project management company. His dedication to delivery of a quality product and excellent management skills will be missed. Anthony's replacement will be announced in due course.



## Improving customer service

Thanks to all customers who completed our latest Customer Service Survey in August and September. We received more responses than the previous survey in December/January and were pleased to see a positive reaction to changes we have made during the year.

There has been an improvement in the quotation process and customers also noticed higher quality service in our dispatch departments, most likely due to the annual dispatch supervisors' workshops we have implemented. We are still focusing on doing an even better job in both of these areas.

Importantly, the quality of our products was highly rated. The survey highlighted customer service issues needing attention and we are already working on enhancements in these areas:

- ensuring that our bulk SMS system gets through to customers timeously to advise of supply interruptions;
- accuracy of invoices and statements;
- sending test results to customers as a matter of course, a critical after-sales service that gives customers peace of mind;
- ensuring that all customers receive *Surface Talk* in order to facilitate communication.

# Renewing relationships at Gauteng golf day

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Much Asphalt's annual Gauteng golf day at the Blue Valley Country Club in Midrand on 23 October was thoroughly enjoyable, judging by the comments from some of our guests:

"Thanks once again for a most memorable and enjoyable golf day. This was a day that will be remembered for a long time and it will take some beating to improve on that performance and the venue. The top class company and facilities were enjoyed by all from Unitrans." – *Dave Bullock, Unitrans*

"It was indeed one of the better golf days that I have attended. Thanks a lot!" – *Dirk Herbst, Osborn*

"The golf was reasonable, but everything else was excellent."

– *Mike Walsh, MW Civils*

"Thanks for the special day and great venue."

– *Evert Franzin, Tosas*

"Well done on a very well organised day."

– *Roy Irvine, LTS*

Thanks to all our sponsors for their contribution to the success of this event. They were Zimbiwa, Kenzam/LTS, PPC, Unitrans, Tosas, Colas, Roadmac Surfacing, Grinaker LTA, Pace Oil, Kaytech, WG Wearne, Osborn, Stefanutti and Bressan, Roadspan, Roadlab, Tau Pele, PMD Transport, and WBHO.



LEFT: With Ria Bezuidenhout (2nd from left) and Melanie Thomson (2nd from right) of Much Asphalt are the competition winners (from left): Bruce Anstis of RoadMac, Koos van der Watt of Progress Roadmarking and Herman van der Westhuizen of RoadMac.



Check out Much Asphalt's interactive website at [www.muchasphalt.co.za](http://www.muchasphalt.co.za) for more pictures