FROM THE EDITOR

BRANCH BUZZZZZZ

What you may have missed since Newsletter No.2 of 2013:

15 May 2013 and no entries in the SAICE Western Cape Regional Awards Competition, so yours truly spoke about road-building on the N7 throughNamaqualand in the late 1960's: mountainous terrain, granite "koppiës", blasting, placement of 30m high rockfills and the lack of water for construction. Eric Foster wanted to know the rate of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years

Eric Foster wanted to know the rate of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country north of progress through all that: roughly 40 km in 3 years (although half of that was through easier country

Not on the N7, but elsewhere was the 12% maximum superelevation rate adopted by the Province – a truck with semi-trailer and trailer negotiating a tight radius curve on a steep incline would have a right front wheel over the centreline of the road and the left rear wheel of the trailer in the middle of the shoulder. Brian Alexander explained that the 12% had enabled curves with radii <350m to be used, but they moved away from it because roads in icy conditions would have slow-movers sliding off them (but icy roads see vehicles sliding off, no matter the slope).

George Kustner spoke of the construction of the 410m long Mgeni Viaduct, which will part of the P577 linking Piinetown with areas north of Durban. The bridge – in fact, two bridges alongside each other – was launched on a 9% downhill grade. George was Site Agent in charge of the deck for Rumdel. Casting deck sections was complicated by the vertical sag curve, but the abutment was firmly anchored and the piers were stayed and pre-deflected before launching could begin. Launching required 3 x 350 ton retaining cylinders and 3 x 150 ton thrusting cylinders and there was an extra set of hydraulic cylinders to act as temporary brakes to control any tendency of the deck to run downhill on its own whilst the other rams were being relocated (there was a requirement that the full length of the 25 ton/m deck had to “retained”, assuming zero friction and with a 1,3 “safety” factor). Fail-safe switches were installed, in case there was high resistance due to wrongly installed bearings or other causes, but George kept an eye on the gauges himself and stopped the launch before it ever got to switches tripping.

Mick Latimer thanked George for his clear presentation, noting that the Branch sees such large projects.

17 July 2013 saw Dr. James Cullis address us on the history and hydrology of the McMurdo Dry Valleys in Antarctica. He traced some of the history of exploration. Did you know that Scott boarded his southbound ship at Simonstown, that he stayed in Admiralty House for a few weeks and that the ship’s emblem is emblazoned on the dry dock wall in the harbour? James remarked on mummified remains of seals, which the dryness preserves well, and showed runners, including himself, on the flattest marathon course in the world. The “region is one of the world’s most extreme deserts” says Wikipedia. The little snow that does fall in the valley in which James did most of his work, gets absorbed into the dry air within a few hours and does not wet the earth at all, whilst the river that is fed by melt from the Taylor Glacier, and has a maximum flow of 2cumec, ends in a lake that has shrunk since Scott’s time (was it 12 metres shallower, he said?) and probably beats the Dead Sea on saltiness. What is being learned from the hydrology will give guidance to the study of rivers in more temperate climates.

20 July: Bridge Building Competition at Canal Walk. Again, a smooth-running event organised by Andrew Clothier, Brian and Bev Holdridge, helped by others. Tony Murray’s introduction was more polished than ever. Winners were Brackenfell B. Their bridge carried 282.5kg. Second, Brackenfell A, whose heavier bridge of similar design to the winner, carried 285kg before collapse. Congratulations to them and to their justly proud teacher, Johann Nieuwoudt. Third were Swartland B with a maximum load of 182.5 kg. Andrew writes: “A big thank you to all that were there on the day assisting on one way or another – it is all very much appreciated and certainly makes the load lighter (excuse the pun!)! A special thanks to all those not on the committee but show their commitment and enthusiasm each and every year – Mick Latimer, Sheila Ross, Beverley Holdridge and to the Student Chapters from UCT, Stellenbosch and CPUT.

To all our Consulting Engineers and Construction Company Sponsors, without whose financial support we would not be able to hold this competition and to all of whom goes a BIG thank you: ASLA Construction, Jeffares & Green, Lyners, SMEC, AECOM, Worley Parsons, Bau Afrika, Bergstan South Africa, KLS, Aurecon, KFD Wilkinson, Element, HHO Africa, Kanteley & Templer, PDNA, Haw & Inglis, Sutherland and ICE. Of course without the wood and glue, the competition would fall apart – a special thanks to Jointech (a partner of ours for many years) and Permsaus (Alcolin & Bostick) for their donations of the wood and glue respectively. The men and ladies of Permsaus remained in attendance and enthusiastic throughout the day – great to see and really appreciated.”

26 July: Young Members’ Panel Roadshow at CPUT. Manglin Pillay, Alice Chang, Geoff du Toit, Oliver Rowe, Jameson Mtanga, Ryan Alexander, Peter Johanssen and Cecil Rose spoke about, respectively, SAICE, post-graduate study, balancing work and life on consulting, personal branding and on ethics, the client, contracting, Career Focus and ECSA, whilst UCT’s Student Chapter members along with one person from CPUT presented the play on ethics. Thanks to Alice, Geoff, Vincent Kuo, Fridah Mhlangu and the Student Chapter Committee members for all their efforts to make this a success.

27 July: the Water Competition at Mondale High, with 20 teams competing. Well managed by Quinten Corner, with Prof Van Zyl (with his much-improved equipment) explaining procedures before the event and scientific reasons behind network flow afterwards, Alice Chang, Emmanuel Akampurira, Doug Smetherham and Student Chapter members rushing around in a rather wet environment. Unbelievably, teams from DF Malan took first, second and third, with 20, 50 and 60 penalty points, and
Brackenfell pipped at the post for third. Congratulations to the winners and better luck next year to all the others – the winners said they were second from last in 2012, so the experience helps. Our thanks to Prof. Van Zyl and all the others who helped, and to Mondale High for their rescue after the Mall deal fell through (change of personnel there).

Madrid’s 2013 report praised the tunnel project, saying it would be an excellent addition to the city’s infrastructure. However, some residents were concerned about the impact of the project on local wildlife. The report recommended that additional resources be allocated to the project to minimize its environmental impact.

### SAICE WESTERN CAPE BRANCH 2013 MEETINGS: CPD PTS

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE / TOPIC</th>
<th>PRESENTER</th>
<th>TIME</th>
<th>Pts</th>
<th>CPD NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-23</td>
<td>Waterloo Water Treatment Works on Paarl Mountain</td>
<td>Geoff du Toit</td>
<td>1 Hr</td>
<td>0.1</td>
<td>SAICEwct13 /01306/14</td>
</tr>
<tr>
<td>02-23</td>
<td>Determination of additional resources to manage pollution: Cape Town City stormwater and rivers</td>
<td>Nicole Nel</td>
<td>1 Hr</td>
<td>0.1</td>
<td>SAICEwct13 /01324/14</td>
</tr>
<tr>
<td>02-27</td>
<td>Presidential address</td>
<td>Peter Kleynhans</td>
<td>1 Hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03-20</td>
<td>City of Cape Town’s Community Resident-Unit Refurbishment Programme</td>
<td>Johan Keuler</td>
<td>1 Hr</td>
<td>0.1</td>
<td>SAICEwct13 /01346/14</td>
</tr>
<tr>
<td>04-17</td>
<td>Towards a Scientifically Informed Policy on Hydraulic Fracturing in the Karoo</td>
<td>Dr. Dan Turner</td>
<td>1 Hr</td>
<td>0.1</td>
<td>SAICEwct13 /01347/14</td>
</tr>
<tr>
<td>05-15</td>
<td>Building the N7 through Namaqualand in the 1960’s – a rocky road</td>
<td>Steve Fanner</td>
<td>1 Hr</td>
<td>0.1</td>
<td>SAICEwct13 /01348/14</td>
</tr>
<tr>
<td>06-19</td>
<td>The Mqeni Vaalact</td>
<td>George Kuster</td>
<td>1 Hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07-17</td>
<td>History and Hydrology of the McMurdo Dry Valleys, Antarctica</td>
<td>James Culliss</td>
<td>1 Hr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### UPCOMING EVENTS

Site visit to dry docks: TBA. Keep an eye on your inbox.

**BRANCH MEETING 21 AUGUST 2013**

**Topic:** MBT Study: Stellenbosch  
**Presenter:** Hanifia Galbe  
**Date:** Wednesday 21 August 2013  
**Time:** 17h00 for 17h30  
**Venue:** Atheneaum, Newlands

Hanifia’s study of minibus taxi transport in Stellenbosch revealed shortcomings in the methodology used to capture passenger movement information for the Current Public Transport Record – about half were being captured (passenger movements, that is). Improvements are recommended, so as to be better able to plan.

**CENTENARY CELEBRATION OF THE AMALGAMATION OF CAPE TOWN’S BULK WATER SUPPLY**

The concept includes a new museum at Molteno Reservoir. SAICE may be asked to assist in supplying material for articles and the Branch may be asked to solicit and act as a conduit for donations and to take part in setting up the Museum. Watch your inbox for details later.

### ANNUAL DINNER 9 OCTOBER 2013

19:00 for 19:30 at Kelvin Grove, Newlands; Speaker: Jason Drew; Price: R300 per person. Book with Cheryl Wright: cheryl.wright@uct.ac.za, (021 – 6502584)

### BRANCH MEETING 16 OCTOBER 2013

**Topic:** Transport matters  
**Presenter:** Gordon Laing  
**Date:** Wednesday 16 October 2013  
**Time:** 17h00 for 17h30  
**Venue:** Atheneaum, Newlands

### SNAPE MEMORIAL LECTURE: 13 NOVEMBER 2013

**Presenter:** Gordon Prestedge  
**Date:** Wednesday 13 November  
**Time:** 17h00 for 17h30  
**Venue:** Atheneaum, Newlands

### ANNUAL GENERAL MEETING 20 NOVEMBER 2013

**Date:** Wednesday 20 November 2012  
**Time:** 17h00 for 17h30  
**Venue:** Atheneaum, Newlands

### ARE YOU CONNECTED....?

We regularly send out email messages to members via E-flash. If you would like to be on the E-flash address list, send an email to marianne.vanderschuren@uct.ac.za with the heading SAICE E-flash (you need not put anything in the text if you don’t want to), or fill out the Contact Page on the Branch Website http://www.saicewc.co.za.

**WE ARE LISTENING...**

If you have any comments regarding Branch activities, please let us know via email (fanner@telkomza.net) or post on our website http://www.saicewc.co.za.

**EDITOR:** Steve Fanner