

**N21 (R300) CAPE TOWN RING ROAD  
MINUTES OF FOCUS GROUP MEETING NO. 5 (15/04/2002)**

**DATE:** Monday, 15 April 2002  
**VENUE:** Pappasitos Conference Centre, Durbanville  
**TIME:** 15h00-16h30  
**FACILITATOR:** Sadia Chand (Chand Environmental Consultants cc)

### 1. Attendance

Name	Organisation
J Coetzee	Bon Mella Estate
C J Naude	Vrymansfontein Plaas
J Klaasen	Durbanville Community Police Forum; Durbanville Development Forum
Bob Krause	Golden Arrow Bus Services
Jonathan Cartwright	Durbanville Environmental Forum; Environmental Justice Network Forum; Wildlife and Environment Society of South Africa: Western Cape
Michael Mangnall	Chand Environmental Consultants
Danie Erasmus	South African National Roads Agency Limited
Mark Sasman	Ecosense
Sadia Chand	Chand Environmental Consultants
Emily Herschell	Chand Environmental Consultants
Poens Venter	Power Group of Companies

### 2. Introduction

S Chand opened the meeting at 15h00 and welcomed all those present. The meeting's agenda first involved an explanation of the Environmental Impact Assessment Process, followed by a presentation, which would clarify the N21 (R300) Toll Ring Road Project in more detail. A discussion session would follow, in which all questions would be answered.

### 3. The Environmental Impact Assessment Process

#### 3.1 The Scoping Process

A Scoping Study was undertaken in accordance with the requirements of the Environmental Conservation Act No. 73 of 1989 and the National Environmental Management Act No. 107 of 1998. This took place from February to November 2000.

The Scoping exercise entailed initial specialist studies and public participation process. The Final Scoping Report was submitted and approved by the two environmental authorities, the Department of Environmental and Cultural Affairs and Sport (DECAS) and the Department of Environment Affairs and Tourism (DEAT) in Pretoria.

#### 3.2 Impact Assessment

Based on the results of the Scoping Report, a Plan of Study for an Environmental Impact Assessment was submitted to the environmental authorities during May 2001. Approval for an Environmental Impact Assessment was received on 4 July 2001.

The Environmental Impact Assessment would entail a further public participation process and detailed specialist investigation.

The specialists have been commissioned to investigate:

- Vegetation
- Birds and butterflies
- Reptiles and Amphibians
- Wetlands and Rivers
- Geohydrology
- Planning
- Visual
- Social
- Archaeology

### **3.3 Specialists: Terms of Reference**

The specialists are required to:

- Conduct field studies;
- Interact in the public participation process;
- Use existing data where necessary;
- Confirm and further investigate impacts/issues raised during the Scoping Phase; Recommend mitigation measures to alleviate negative impacts;
- Use specified evaluation criteria to determine the significance of the impact both before mitigation and after;
- Assess implications and provide guidelines for the design, construction and operational phases of the development.

In addition, there is a workshop scheduled for the specialists and engineers, so as to allow their interaction within the process

### **3.4 Public Participation Process**

There are a lot of people who may be affected by this road. It has been difficult contacting all those who registered on the Interested and Affected Party database during the Scoping Phase, as addresses and telephone numbers have changed since then. Communication with during the Environmental Impact Assessment Phase will be with the I&APs on the database and any additional people who register throughout the process.

The methodology for the public participation process has involved:

- Continual updating of the I&AP list.
- Distribution of a second Background Information Document so as to make I&APs aware that the process is continuing.
- Conducting a 'Knock 'n Drop' of background information flyers (English, Afrikaans and Xhosa) to homes adjacent to the proposed road.
- Flyer handouts (English, Afrikaans and Xhosa) at intersections along the proposed route so as to target road users.
- Hosting Focus Group Meetings aimed at informing chairmen of civic/interest groups and organizations that the process is continuing and to assess whether there are any further issues/impacts that have not been considered during the Scoping

Phase. Focus Group Meetings are still to be scheduled with a number of interest groups;

- Placing an advertisement of the Environmental Impact Assessment in all the local papers.
- Hosting Open Houses between June-August. The exact dates for these, are, as yet uncertain, as we are waiting for new information from the engineers.
- Public review of the Draft Environmental Impact Assessment Report and further Open Houses are scheduled for September.

### **3.5 Products**

The products of the Environmental Assessment Phase include:

- A Plan of Study for EIA (submitted to the authorities);
- An Environmental Impact Report including:
  - Specialists' inputs; and
  - Results of the Public Participation Process;
- A Draft Construction Environmental Management Plan, drawn up by M Sassman, for, if the project reaches the tender phase, applicants will need to consider this in their tender.

## **4. The N21 (R300) Cape Town Ring Road**

P Venter introduced himself and the contents of his presentation, which included:

- A brief introduction
- Project details
- Project viability
- Conclusions
- The way forward

### **4.1 Introduction**

#### **4.1.1 Peninsula Expressway Consortium**

P Venter introduced the Peninsula Expressway Consortium as consisting of a mixture of local expertise and empowerment groups, that is the:

- Project Sponsors:
  - Murray & Roberts
  - Power Group of Companies
  - African Renaissance
- Construction Companies:
  - Murray & Roberts
  - Power Construction
- Toll Operating Company:
  - Tolcon
- Consulting Engineers:
  - goba moahloli keeve steyn
  - ASCH
  - Kayad
  - Jeffares and Green
- Financial Advisors:
  - PricewaterhouseCoopers

#### 4.1.2 Project History

P Venter noted that the concept for this project had arisen in 1996 and Western Cape Cabinet Approvals had been given on the:

- 14 May 1997; and
- 18 February 1998

After submitting a proposal to the South African National Roads Agency Limited (SANRAL) in October of 1998, Penway were awarded Scheme Developer status in January 2000 to develop their unsolicited proposal. An agreement was signed where Penway was allowed to develop the scheme on an exclusive basis. The project has been split into two phases, the first of which, the Initial Phase of Scheme Development, was completed in November 2000. After due consideration that the project was feasible, SANRAL granted approval for Penway to proceed with the second phase, the Final Phase of Scheme Development, in July 2001. An agreement (with project specific and strategic conditions) was signed in November 2001 to proceed with this phase.

P Venter went on to describe that important approvals had been received, specifically from:

- Western Cape Premier: 10 May 2001
- Department of Environmental Affairs and Tourism: 14 May 2001 (accepted the Scoping Report)
- City of Cape Town: 23 May 2001

#### 4.1.3 Project Locality

P Venter described that in general, the road would consist of a limited access freeway of two/four/six lanes. The former means that one could only access the road through an intersection. It would be public transport-friendly and would use an electronic toll collection system, over a 30 year concession period.

### 5. Project Details

#### 5.1 Traffic

5.1.1 Traffic-related work has consisted of:

- a) Data Collection
- b) Surveys undertaken
- c) Other information
- d) Traffic and Toll modelling (a requirement from the financial consultants is that the model must be audited at international standards)
- e) Some Pertinent Findings

These include:

- The traffic model accounts for ± 166 000 morning peak hour trips
- The distances travelled on the R300 are relatively short due to the urban nature of the surrounding areas (dominated by N1 and N2 – toll perspective required)
- Trip purposes (daily trends):

Commuting:	10,0 to 25,0%
Business:	60, to 80,0%
Other:	8,0 to 17,5%
- Trip frequency:

One or more trips/day:	45,0 to 72,0%
One or more trips/week:	18,0 to 32,0%
Other:	8,0 to 25,0%

P Venter noted that more people are seen as commuting for business purposes on a daily basis and for more than one trip per day.

- Daily Corridor Volumes

P Venter noted that in the northern areas, there are lower volumes of traffic. If this project gets the go ahead, these volumes may increase.

- Year 2005 Traffic Volumes before Toll

## 6. Engineering and Technical Details

### 6.1 Route Sectors

P Venter explained that the route consisted of four route sectors, made up of different highway sections. The four sectors include:

- Sector 1: Westlake (M3) to Vanguard Drive (M7)
- Sector 2: Vanguard Drive ((M7) to Stellenberg Interchange (N1)
- Sector 3: Stellenberg Interchange (N1) to Otto du Plessis (M14)
- Sector 4: Philippi Link: Vanguard Drive (M7) to Prince George Drive (M5)

### 6.2 Discussion of Highway Sections

The following describes the proposals for the highway sections within each sector.

#### Sector 1: Westlake (M3) to Vanguard Drive (M7)

##### Highway Section 1A

Westlake (M3) to Main Road (M4)

##### General

Upgrading of existing road

Length = 1,2 km

1 existing interchange at Westlake

Existing dual carriageway cross section comprising 2x3,7m , 1, 0m slow shoulder and 4,0m median

Projected Initial Traffic: 25 700 AADT

##### Initial Construction Period

Crack sealing, surface and base repairs

No structures affected

Provision of a traffic circle at Main Road (M4)

##### Additional Construction Works Period

Widen to 6 lanes (2022) (as soon as the road reaches its threshold)

Ongoing maintenance and rehabilitation (the concessionaire is obliged to do this, otherwise the concession will be cancelled)

##### Highway Section 1B

Main Road (M4) to Prince George Drive (M5)

##### General

Proposed new freeway section

Length = 2,8 km

Road reserve to be proclaimed

Projected initial traffic: 24 000 AADT

##### Initial Construction Period

- Construction of dual carriageway freeway

- Proposed cross section comprising 2x3,7 m lanes, 2.5 m slow shoulder and 1, 0 m fast shoulder
- Construction of 2 grade separation and 2 drainage structures
- Construction of an interchange at Prince George Drive (M5)
- Provision of toll plazas on western ramps of Prince George interchange

#### Additional Construction Works Period

Widen to 6 lanes (2028)

Ongoing maintenance and rehabilitation

#### Highway Section 2

Prince George Drive (M5) to Vanguard Drive (M7)

#### General

Proposed New freeway section

Length = 14, 0 km

Projected Initial Traffic

#### Initial Construction Period

- Construction of 12,0 km of single and 2, 0 km of dual carriageway freeway
  - Proposed cross section comprising 2x3,7 m lanes, 2.5 m slow shoulder and 1, 0 m fast shoulder
  - Construction of 5 grade separation, 2 drainage and 5 other structures over oxidation ponds. Also 1 pedestrian overpass.
  - Construction of an interchange at Vanguard Drive (M7)
- Provision of a mainline toll plaza

#### Additional Construction Works Period

- Completion of a dual carriageway (2010)
- Widen to 6 lanes (2028)
- Ongoing maintenance and rehabilitation

### **Sector 2: Vanguard Drive ((M7) to Stellenberg Interchange (N1)**

#### Highway Section 3

Vanguard Drive (M7) Swartklip Interchange (N2)

#### General

Upgrading of existing R300, which is at the end of its life

Length = 4, 0 km

Existing dual carriageway cross section comprising 2x3,7 m lanes, 3,2m slow shoulder and 1,0 km fast shoulder

1 existing interchange at Stock Road (M38)

Projected initial traffic: 49 400 AADT

#### Initial Construction Period

- Crack sealing, surface and base repairs followed by an overlay
- No structures affected
- Safety improvements
  - Palisade fencing
  - Additional pedestrian overpass
- Provision of toll plazas on western ramps of Stock Road interchange

#### Additional Construction Works Period

Widen to 6 lanes – km 19,8 to km 22,0 (2011)  
Widen to 6 lanes – km 18,0 to km 19, 9 (2018)  
Widen to 8 lanes – km 19, 9 to km 22, 0 (2019)  
Widen to 9 lanes – km 18, 0 to km 19, 8 (2034)  
Ongoing maintenance and rehabilitation

#### Highway Sections 4 and 5

Swartklip Interchange (N2) to Stellenberg Interchange Road (N1)

#### General

Extensive upgrading of existing R300  
Length = 15, 5 km  
5 existing interchanges  
Projected initial traffic: 55 000 AADT

#### Initial Construction Period

- Crack sealing and *in situ* reworking of slow lane and shoulder followed by an overlay
- Existing cross section (dual carriageway comprising 2x3,7 m lanes, 3,2m slow shoulder and 1,0 km fast shoulder) widened to 6 lanes on median side

### **Sector 3: Stellenberg Interchange (N1) to Otto du Plessis (M14)**

#### Highway Section 6

Stellenberg Interchange (N1) to Wellington Road (R302)

#### General

Proposed new freeway section  
Length = 8,0 km  
Projected initial traffic: 28 230 AADT

#### Initial Construction Period

- Construction of dual carriageway freeway
- Proposed cross section comprising 2x3,7 m lanes, 2,6 m slow shoulder and 1,0 km fast shoulder
- Cross section of 4 grade separation and 3 drainage structures
- Construction of 2 interchanges
- Construction of toll plazas on the western ramps of the de Villiers and Wellington Road interchanges

#### Additional Construction Works Period

Widen to 6 lanes – km 37, 6 km to km 41, 9 (2018)  
Widen to 8 lanes – km 41, 8 km to km 45, 6 (2025)  
Ongoing maintenance and rehabilitation

#### Highways Sections 7 and 8

Wellington Road (R302) to Otto du Plessis Road (M14)

P Venter explained that the route north of Durbanville follows a new alignment, which was planned by the then Blaauwberg Municipality: the East-West Arterial. It was initially proposed to take the M19 to Big Bay, however, it made more sense in terms of utilization and planning to bring it south. He also noted that this section has already been through a Scoping Phase and a letter of comment has been received from the Department of Environment, Cultural Affairs and Sport. Developments

in the area include the Vissershok Waste Disposal Site. The rest of the area consists of Greenfield sites and the route follows along the southern part of the Blaauwberg Conservation Area

#### General

Proposed new freeway section

Length = 23,9 km

Road reserve to be proclaimed from existing provincial proclamation (80m)

Projected initial traffic: 11 350 AADT

#### Initial Construction Period

Construction of single carriageway freeway

Proposed cross section comprising 2x3,7 m lanes and 2,5 m shoulders

Construction of 6 grade separation and 1 drainage structure

Construction of an interchange at Vissershok (M7)

Construction of a traffic circle at West Coast Road (R27)

Construction of a mainline and ramp plazas at the Vissershok interchange

#### Additional Construction Works Period

Completion of dual carriageway (2021/2023). This may change as a result of the development occurring there now.

Ongoing maintenance and rehabilitation)

#### Highway Section 9

Regrading of N1 at Stellenberg Interchange

#### General

Regrading of existing National Route 1

Length = 1,5 km

#### Initial Construction Period

Regrade 1,5 km of existing National Route 1

Existing cross section unaffected

Complete construction of the Stellenberg interchange

#### Additional Construction Works Period

Ongoing maintenance and rehabilitation

### **Sector 4: Philippi Link: Vanguard Drive (M7) to Prince George Drive (M5)**

P Venter explained that the Philippi Link was originally proposed as an alternative to the toll road, however the traffic model indicated that it made sense to include it as well because it:

- a) Serves two different traffic catchment areas; and
- b) Enhances the entire scheme.

This sector has undergone an extensive Scoping Phase and the Cape Metropolitan Council requested a full Environmental Impact Assessment to be conducted on it. A Record of Decision has been issued on this road. He also noted that as a result of this, extensive discussions with the farmers from this area had been conducted, however Penway still needs to and will carry out the public participation process with these Interested and Affected Parties on the tolling issue.

#### Highway Section 10a

Prince George Drive (M5) to Strandfontein Road (M17)

### General

Construction of new freeway section  
Length = 3,2 km  
Projected initial traffic: 27 800 AADT

### Initial Construction Period

Construction of dual carriageway freeway  
Proposed cross section comprising 2x3,7 m lanes with 2,5 m slow and 1,0 m fast shoulders  
Construction of 3 grade separation and 2 drainage structures  
Construction of an interchange at Strandfontein Road (M17)  
Construction of toll plazas on the western ramps of the Strandfontein Road interchange

### Additional Construction Works Period

Ongoing maintenance and rehabilitation

### Highway Section 10b

Strandfontein Road (M17) to Vanguard Drive (M7)

### General

Construction of new freeway section  
Length = 4,5 km  
Projected initial traffic: 27 780 AADT

### Initial Construction Period

Construction of single carriageway freeway initially  
Proposed cross section comprising 2x3,7 m lanes with 2,5 m shoulders  
Construction of 2 grade separation  
Construction of a traffic circle at Vanguard Drive (M7)  
Construction of mainline toll plaza

### Additional Construction Works Period

Completion of dual carriageway (2010)  
Ongoing maintenance and rehabilitation

## **6.3 Summary of Initial Construction**

### New Construction

Length of single carriageway freeway = 39,5 km  
Length of dual carriageway freeway = 17,5 km  
Number of new major structures = 39  
Number of new mainline toll plazas = 11

### Upgrading of existing roadway

Length of existing roadway = 20,7 km  
Length of upgrading to 6 lane dual carriageway freeway = 15,5 km  
Length of asphalt overlay = 20,7 km

### Significant Safety Improvements

Provision of palisade fencing = 27,9 km  
Provision of concrete median barrier = 15,5 km  
Provision of pedestrian overpasses = 3

## **6.4 Technical Issues**

P Venter explained that these issues arose out of the Scoping Phase:

- Realignment through the Blaauwberg Area
- Completion of the Stellenberg Interchange
- Design of the Cape Flats Freeway (Philippi Link)
- Noise abatement structures
- Highway lighting
- Crossing of the Cape Flats Water Treatment Works
- Relocation and/or protection of Services

He added that the City of Cape Town had granted Penway permission to make use of the Blaauwberg East-West Arterial and the Cape Flats Freeway Alignment.

## **7. Toll Strategy Development**

### **7.1 Prerequisites:**

- Equitable (The user is to pay for that section of road that he uses)
- Relatively comprehensive (charge fairly for numerous different trip O/D patterns)
- Affordable:
  - open system
  - incorporate electronic and manual collection systems

P Venter explained that Penway is proposing three mainline toll plazas (that is. a toll plaza spanning the entire road) plus toll plazas located on ramps onto the road. There would be differential toll tariffs on both ramps and mainline toll plazas. He noted that this is not ideal from an operational point of view, but that it could not be done any other way because of the area's surrounding urban nature.

### **7.2 Toll Rates**

P Venter explained that optimisation tests had been performed. The recommended values are also in line with current toll rate levels (20 to 30 c/km). As a result of the urban condition, higher values were incurred over shorter distances.

Ratios between classes 1: 2,0: 3,0: 4, 0.

Requirements in regard to discounts are also being investigated (for regular users and those from disadvantaged communities).

## **8. Project Viability**

### **8.1 Financial viability**

P Venter noted that a transport economic study helps to prove project viability. A comprehensive financial model is needed for investors who are prepared to take equity.

An economic model is being developed by the University of Cape Town's Graduate School of Business. This will assess macro- and microeconomic impacts of the proposed road. This should be completed by July 2002.

## **9. Transport Economic Evaluation**

P Venter explained that the toll rates/income equate to only a portion of the benefit received. There is a benefit to all road users on the Cape Town Road Network:

- Benefit-Cost Ratio = 13,2 (that is, the benefits obtained are greater than vehicle and time costs by this factor)
- Internal Rate of Return = 110%

The above very high economic returns reflect the urban nature of the road and the benefits realised to traffic throughout the metropolitan road network.

## 10. Conclusions

P Venter concluded that the project has reasonably been accepted by the public and has received a high level of support from the previous Western Cape Premier and his cabinet. He emphasised that support from new Premier and his cabinet is still required). He added that there is a need for a ring road in the Cape Metropolitan Road Network as demonstrated by the demand in the traffic model. The existing R300 requires capacity and structural upgrading. Finally, the project is economically and financially viable and the project does not require any government subsidy.

## 11. The Way Forward

P Venter explained that the Final Phase of Scheme Development will include the

- Completion of the Environmental Impact Assessment
- Detailed engineering design
- Engineering survey and investigation
- Tender documentation (Note that Penway will also have to tender)

It is expected to be complete by December 2002.

He went on to say that if the relevant authorities approve the project, the following will occur:

- Declaration of a National Road/Intent to toll
- Tender
- Preferred bidder

This is expected to take 12 – 18 months to complete (By 2004). Construction would take place over 3 years (2004 – 2007).

P Venter added that this information could also be found on the website: [www.peninsula-expressway.org.za](http://www.peninsula-expressway.org.za)

## 12. Discussion

S Chand opened the floor for discussion.

COMMENTATOR	COMMENT / QUERY	RESPONDENT	RESPONSE
J Cartwright	Do we have the same Western Cape Premier as who approved the project in 2001?	P Venter	No
C Naude	Certain parts of the road need a 80m road reserve, but only have 60m. Will the drainage area for the road be sufficient, particularly in areas prone to flooding?	P Venter	An extensive geohydrology study is being done to cater for the 1:50 year flood. Engineers will provide culverts, traps and cannel for runoff where necessary.
B Krause	Why only count the number of vehicles and not the people travelling on the road? This does not indicate the efficiency rate of the road.	P Venter	Vehicle occupancy will be taken into account in the socio-economic studies. The toll fares will only be based on number of vehicles not the occupancy of vehicles.
C Naude	The road will cut farms into two. How will farmers get	P Venter	This will depend on the individual needs of each

	from the one side of their farm to the other?		farmer. The farmers will be consulted and their needs addressed.
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C Naude	How will one get onto the road between Wellington and the N7?	P Venter	Access to the road will be restricted to interchanges on major roads. This is in line with the Metropolitan Spatial Development Framework, that restricts urban development outside the urban fringe.
C Naude	We need to plan for the next five years on our farms. We will have to meet with the roads engineers soon.	S Chand	More information will be available towards the end of May, however, P Venter can arrange a meeting for you with the engineers by the end of the week.
J Coetzee	I second the above question	P Venter	We welcome an interactive process of planning with yourselves and the engineers.
J Klaasens	Will the noise abatement measures be discussed at the Open House meetings?	M Sasman	Yes they will. The specialists should be able to report on the noise abatement measures that are proposed.
J Klaasens	Will you be able to give more details on the toll rates of the project at the Open House meetings?	P Venter	No, the exact toll rates will not be available. At this time, all we can give you is the range of toll that you are likely to pay, which is projected at 20 to 30c/km.
J Klaasens	If the financial viability depends on the toll being set at 20 to 30c/km and on the accuracy of your traffic volumes, will the project be viable if the rates fluctuate?	P Venter	At this stage the project will be viable on the rate between 20 to 30c/km. Tenders could however have more competitive rates.
J Klaasens	Are the toll rates still open to a political decision and how are your traffic volumes measured?	P Venter	The final decision on toll rates is still open to a final decision from the Minister. No toll can be charged until it has been published in the Government Gazette.
J Cartwright	Will inflation affect the current toll rates of 20 to 30c/km being proposed?	P Venter	The prices are based on the Consumer Price Index (CPI.)
J Cartwright	Noise from the road will reduce the production capacity of poultry and dairy farms.	P Venter	Noted.
J. Klaasens	From a safety and security perspective, will the toll road not serve as an easy escape route for criminals?	P Venter	All toll booths will have CCTV in operation. The road will be patrolled and all other emergency facilities will be available along the road.
J. Klaasens	Will the concessionaire decide	P Venter	The concessionaire will be

	on the placing of cameras on the road?		responsible for the placing of CCTV on the road. The tenders will also be able to improve the social aspect of their tender by implementing additional security measures on the road. CCTV on the road other than at toll booths does not form part of the tender bid. SANRAL can however still decide to make CCTV a condition when the project goes out to tender.
J. Klaasens	Will there be any time for any input during the tender period?	S Chand	The public will have time to comment at the Open Houses and on the draft Environmental Impact Report, which is scheduled for completion at the end of 2002. Thereafter, the process will be closed to further public comment.

## 7. Conclusion

S Chand thanked all those present for attending and closed the meeting at 14h30. She also reminded attendees to refer to the website ([www.peninsula-expressway.org.za](http://www.peninsula-expressway.org.za)).