

**N21 (R300) TOLL RING ROAD  
DRAFT MINUTES OF FOCUS GROUP MEETING NO. 3**

**DATE:** Monday, 15 April 2002  
**VENUE:** Pappasitos Conference Centre, Durbanville  
**TIME:** 10h00-11h30  
**FACILITATOR:** Sadia Chand (Chand Environmental Consultants cc)

### 1. Attendance

<b>Name</b>	<b>Organisation</b>
F White	Bellville Distriksraad
Mark Pinder	City of Cape Town: Blaauwberg Administration
Johan Engelbrecht	Durbanville Agricultural Union; Durbanville Business Association
Ian Jankielsohn	Durbanville Development Forum
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 13h00 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 during the Environmental Impact Assessment Phase would be with the I&APs on the database and any additional people who register throughout the process.

The methodology for the public participation process involves:

- Continual updating of the I&AP list.
- Distribution of a second Background Information Document 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 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 local papers.

- Hosting Open Houses from 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:
  - the specialists' inputs
  - the results of the Public Participation Process;
- A Draft Construction Environmental Management Plan, drawn up by M Sasman, for, if the project reaches the tender phase, applicants would 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
- 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

P Venter replied that a letter had come from the Cape Metropolitan Council (Planning Department), as a representative body.

#### **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. The road would be public transport-friendly and would make use of an electronic toll collection system.

### **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  $\pm$  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	60,0 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 (Year 2005, before Toll)

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.

### **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 Phase

Crack sealing, surface and base repairs

No structures affected

Provision of a traffic circle at Main Road (M4)

#### Additional Construction Works Phase

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 would 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 Phase

- 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 Phase

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 Phase

- 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 Phase

- 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 Phase

- 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 Phase

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 Phase

- 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 Phase

- 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 Phase

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 Phase

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 Phase

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 Phase

Regrade 1,5 km of existing National Route 1

Existing cross section unaffected

Complete construction of the Stellenberg interchange

#### Additional Construction Works Phase

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 would 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 Phase

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 Phase

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 Phase

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 Phase

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.

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 would 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 would include the

- completion of the Environmental Impact Assessment
- engineering design
- survey and investigation
- tender documentation (Note that Penway would 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 would 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	How does the Department of Environmental Affairs and Tourism view the road that intersects the coast north of Bloubergstrand at right angles	S Chand	No comment has been made as yet.
J Cartwright	The road should not be termed a 'ring road' as it actually is a bypass. A ring road goes completely around.	P Venter	Point noted, We have obvious natural constraints that prevent the road from forming a complete ring. Within the urban network, however, the road serves the purpose of a ring road
J Cartwright	As the road ends in a 'dead end', would this not increase the traffic on the coast, thus stimulating investment and increasing the population on the coastal road. This would contravene the White Paper on Coastal Development.	P Venter	Traffic engineers would address the natural constraints presented at the intersection with the coast. We have also been restricted by the City of Cape Town from putting any interchanges in certain areas, which restricts access and thus development along the road.
M. Pinder	I only have technical questions, which are not relevant here.	P Venter	You are welcome to raise any questions. It should be noted that the Transport Planning Department of the City of Cape Town would co-ordinate with the other departments involved. Ron Haiden is the designated contact person in that department. All the design aspects that you have sent through have already been noted in the process so far and would be taken up by the design team.

### **13. Conclusion**

S Chand thanked all those present for attending and closed the meeting at 19h00. She also reminded attendees to refer to the website ([www.peninsula-expresssway.org.za](http://www.peninsula-expresssway.org.za)).