A call for partnership
City of Joburg
17 October 2014

Making Joburg a cycle friendly City
Agenda

- Cycling in the City of Joburg
- Initiatives to date
- Taking cycling to a new level
We are progressively turning Johannesburg into a cycle-friendly city.

To celebrate the life of our great hero, Tata Nelson Mandela and in partnership with cycling organisations we organised a Freedom Ride on the 9th of February. This ride attracted 5 000 cyclists from all walks of life riding from the Nelson Mandela Bridge in the inner city to Mandela’s House in Soweto and back.

To make sure that cycling is accessible to all we handed out 350 bikes in Tshepisong last year, 50 to Orlando school children during the Freedom Ride and are working with partner organisations to set up a Bike Empowerment Centre in Soweto before the end of this year.

Soon the dedicated cycle path outside this venue – which starts in Noordgesig and ends at Mdlala Street in Orlando West – will be completed. And over the next two to three years the City will be implementing dedicated cycling infrastructure from Melville to Doornfontein, from Alex to the Sandton CBD, from Diepkloof to Fourways and from Rosebank to Sandton.

To complement this dedicated cycling network we are working with the Johannesburg Urban Cyclist Association (JUCA) to identify and sign over 100 kilometres of safe cycling routes across Joburg.”

This is a huge step forward for cycling in JHB. Well done to everyone for helping to make this happen.”

Cllr Parks Tau, April 2014
Cycling in the City of Joburg
We are a VERY low density City where our apartheid legacy has shaped our spatial form (pic shows people per kms squared)
Most work to home trips are longer than can comfortably be cycled
Children often do not school in their neighbourhoods as parents search for better schooling for them
So we are starting from a low base...

Bike ownership from our 2010 household
• 91% had no bicycle
• Who had bikes:
  • 2% JHB CBD and Alex
  • 22% William Nicol
  • 23% Beyers Naude Corridor

Source: http://isecities.net/media/objects/articles/urban-age-cities-compared/en-gb/
Walking was more prevalent in Lenasia and Alexandra (21%) Jhb CBD (20%)

50% walk person trips to education centres Jhb CBD (54%), Soweto (55%), Alexandra (59%), Diepsloot (67%) and Ennerdale/Orange Farm (71%).
Figures Gauteng wide: 2011

Source: GCRO survey
Recreational cycling is very popular
  - 94.7 cycle ride is one of the largest in the world
Over the last two years there have been a growing number of private and civil society initiatives
Other cities have shown that this situation can be turned around
  - Without our climate or geography being a hindrance
There is political will, community initiative and sustainability imperatives to make Joburg a cycling friendly City
The City is committed to making walking, cycling and public transport the mode of choice for City residents.

The City’s commitment is based on the following:

- Cycling can be a meaningful mode of transport for workers and learners who live between 2.5 and 6 km from their places of work or learning or further if integrated with public transport.
- Reduces congestion.
- Reduces CO2 emissions, improves air quality and reduced noise in our neighbourhoods.
- Improves fitness and health of our communities. Cycling is excellent for mental health – regular cycling makes people feel great; and
- More people on our streets walking and cycling breaks down barriers and improves active citizenry.
Pillars to promote cycling

Construction of cycle friendly infrastructure
- Dedicated cycle lanes
- Bike storage and bike parking points
- Bikes on public transport

Making cycles more accessible
- Donation of bikes to learners
- Enabling the private sector to produce bicycles that are more robust
- Ensuring that bike repair is affordable

Cycle promotion
- Promotional events such as Freedom Ride
- Training learners to ride bikes

Cycle safety
- Education of all stakeholders in cycle road safety
- Changes to legislation in respect of road speeds and signage
Progress and initiatives to date
The City has adopted an approach of Complete Streets or completing our streets with cycle lanes, public art, street lighting etc..

In respect of cycle lanes four different classes have been identified:

- Class 1: Completely Dedicated
- Class 2: Dedicated on sidewalk
- Class 3: Dedicated on road surface
- Class 4: Shared on road surface

We are constructing cycle lanes of different classes in different parts of the City.
5 km dedicated cycle lane on the sidewalk from Noorgesig to Orlando West along Mooki Street – linking schools to social amenities and public transport – the focus of this route is for learners (completed).
Dedicated cycling infrastructure: Inner City

- 15 km dedicated cycle lane mostly on street from Doornfontein to Melville and extensions to Westdene, Sophiatown, Langlaagte and Hillbrow
- Aims to connect students and staff members of both UJ and Wits with surrounding residential and retail area
- In construction
Dedicated cycling infrastructure: Alexandra, Alexandra to Sandton

- 3.5 km dedicated walking and cycling lane from Alexandra to Sandton, including a new bridge over M1 (in detailed design stage)
- 30.5 km of sidewalk upgrading, including cycle lanes where space in Alexandra (in construction)
Dedicated cycling infrastructure: Sandton CBD

- Accommodation for cycling along Maude, Alice, West
- Possible cycle bridge over Sandton Drive
Dedicated cycle infrastructure: Regional network to Sandton CBD

- Sandton Transport Master Plan commissioned by Sandton Central proposed regional bike network
- Detailed designs still to be done
Dedicated cycling infrastructure: From Rosebank

20 km linking Rosebank, Melrose Arch, the Parks and Sandton (in detailed design stage)

Funding to be sought from developers or City’s 2017/18 budget
Dedicated cycling infrastructure: Diepsloot to Fourways and other

- Zandspruit to Honeydew (completed)
- Diepsloot to Fourways cycle lane on sidewalk (in construction in partnership with private developer)
- Demonstration projects of complete streets in Diepsloot, Zola, Kaalfontein and Orange Farm (various stages of completion).
Other cycling infrastructure

- Cycle storage at most Phase 1A and 1B stations
- Plans for cycle racks at commuter shelters
## City Capex Budget

<table>
<thead>
<tr>
<th>What</th>
<th>Budget</th>
<th>Anticipated completion</th>
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<tbody>
<tr>
<td>UJ/Wits 10 km cycling route (Park Station to Melville)</td>
<td>R40 million</td>
<td>June 2015</td>
</tr>
<tr>
<td>UJ/Wits further 5 km cycling route (Park to Doornfontein)</td>
<td>R30 million</td>
<td>June 2015</td>
</tr>
<tr>
<td>Westbury Sophiatown (complete streets 25 km)</td>
<td>R70.5 million</td>
<td>June 2015</td>
</tr>
<tr>
<td>Langlaagte (complete streets approx 15 km)</td>
<td>R25.3 million</td>
<td>June 2015</td>
</tr>
<tr>
<td>Hillbrow (complete streets approx. 12 km)</td>
<td>R30 million</td>
<td>June 2015</td>
</tr>
<tr>
<td>Alex to Sandton (Great Walk including bridge- 5 km)</td>
<td>Not known</td>
<td></td>
</tr>
<tr>
<td>Rosebank to Sandton, Rosebank to Parks, Rosebank to Melrose (20 km)</td>
<td>Not known</td>
<td></td>
</tr>
<tr>
<td>Orange Farm (10km)</td>
<td>R20 million</td>
<td>June 2016</td>
</tr>
<tr>
<td>Ivory Park (10 km)</td>
<td>R30 million</td>
<td>June 2015</td>
</tr>
</tbody>
</table>
Making bikes more accessible
Making bikes more accessible

- The minimum cost of a reliable bike, helmet, pump, utility tool and cable lock that can be used by commuters or learners is R2150. This is unaffordable for poor households.

- City efforts at making bikes more accessible to date has been limited to:
  - Partnering with the national and provincial government programme of Shova Kalula which distributes bikes to school children who meet certain criteria. Bikes have been distributed to learners in Orlando, Tshepisong and Ivory Park. Poor record of bikes remaining with learners and there are also quality issues with bikes.
  - Engagement with the IDC and a potential Dutch investor to bring more robust bikes to South Africa (not successful).
  - Understanding the Quebeka model – donates significant number of bikes in a single community coupled with significant community engagement, support and often ‘sweat equity’ commitment from recipients.
  - Bike share feasibility study (see later).
Making bikes more accessible

- Key to making bikes more accessible is bike support
- The Freedom Ride partnership has raised over R100 000 for a Orlando Bike Empowerment Centre (BEC) which will provide bike maintenance and training at Orlando High School
- To be launched on 23rd October 2014

- The BEC model originates from a Cape Town based NGO who:
  - Supplies containers which are converted into workshops
  - Initially stocks the workshop with bikes and tools
  - Trains BEC managers in business management and bike maintenance
Making bikes more accessible: Bike sharing

- The City is completing a bike share feasibility study
- Due to low densities, poor affordability, security and safety issues, such schemes may not be feasible on their own
- Micro financing of bikes and allowing bikes on public transport could improve chances of success

Graph: Simplified Generalised Cost of Modes

- Assumed value of time: R6/hr in-vehicle; 2x waiting, 2.5 times walking
- Speeds: cycle 10km/hr, Taxi 15km/hr, Car 18km/hr
- Assumed Bike Sharing Monthly Subscription R200
Historically the City has partnered with the Highveld 94.7 cycle race focusing on recreational cycling.
Since 2011, the City has initiated a Streets Alive programme where streets are closed for a certain period of time in local communities and people are encouraged to use the street for walking, cycling, festivals etc. – but the focus has not been on cycling
However in 2014, the City partnered to host two Freedom Rides (Feb and July) which generated enormous interest and enthusiasm and partnerships
We are planning an international Eco-Mobility Festival in Sandton for 2015 in partnership with ICLEI (local governments for sustainable development)
5,000 people participated
35 km recreational ride
Arranged in partnership with cycling organisations and volunteers
Month long international festival to be arranged in partnership with ICLEL (international association for sustainable local government)
Will be second international festival – first was in Suwon, South Korea
Will involve closing certain streets in Sandton for one month to cars but allowing all other eco-mobile forms including electric cars, tuk tuks, cyclists etc.
Will include an international conference, street festivals, fun runs, healthy food markets, cycle rides and cycle polo, etc.
Proposed festival area
Next steps for Eco-Mobility Festival

- Detailed transport and traffic study to determine which streets to close and how to mitigate impact – including to provide additional public transport, pop up cycle lanes, provision for deliveries etc.
- More extensive public consultation with residents, workers and stakeholders
- Seeking of partnerships and sponsorships locally and internationally
I read the article regarding the planned revamp of Jo'burg's roads... with interest. Magaliessig is a residential suburb in Fourways. I believe it may be a candidate to be part of the roll out of these plans for the following reasons amongst others:

* its roads are tree-lined with fairly wide pavements
* they are well used by cyclists, joggers, pedestrians, dog walkers and "pram pushers"....
* there are 2 cycle shops in the suburb and every Sunday morning cyclists meet (I believe at the Design Quarter) and then cycle through the suburb as part of their route
* we have an active community of all age groups and cultures"
And there are emerging and growing cycle businesses...

**Electrical bikes**

**Pedicabs**
“It is no surprise that cycling-friendly cities are increasing associated with high degree of resident satisfaction and loyalty. They are seen as attractive places to live in and tend to draw in investments. Others bucking this trend are seeing residents and firms voting with their feet. For example, because of the high degrees of traffic related pollution, many who can are leaving Beijing.

“Johannesburg can choose the former vision. JUCA's vision for Johannesburg is one where children can cycle to school on the streets without inducing anxiety in their caregivers or parents, and where all those who choose to cycle can hop on their two wheels without experiencing trepidation or suffering stigma’ JUCA 2014
Good progress is being made in a relatively short period of time. But to take cycling to a new level, we need not only more investment but investment which is better sequenced, co-ordinated and integrated.

While the international experience shows that dedicated cycling lanes is an important pre-requisite for increasing the share of commuters that use bicycles, our own experience tells us that cycling lanes are not sufficient. In addition, bikes must be more accessible particularly to residents who can meaningfully cycle to work or school and the mode must be seen as both safe and ‘cool’.

So for example, unless there are more cyclists using the University Corridor cycle lane, it will not be used by cyclists and ‘taken over’ by other road users – most likely for parking. And to get cyclists to use this, there needs to be schemes to promote cycling, possible subsidisation of cyclists and a guarantee of safety – which could involves both enforcement and education of all motorists.

Thus we are proposing that the pillars of infrastructure, accessibility, promotion and safety need to be integrated at a local and city wide level – as per next slides.
Where cycle lanes are rolled out, there needs to subsequent roll out of bikes, promotion and safety of cyclists must be ensured.

<table>
<thead>
<tr>
<th>Area</th>
<th>Cycle friendly infrastructure</th>
<th>Accessible Cycling</th>
<th>Cycle promotion</th>
<th>Cycle safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>A particular area such as Orlando, Diepsloot, Sandton, Alexandra, Rosebank</td>
<td>Dedicated cycle lanes (Class 1 to Class 4)</td>
<td>Shova Kalula Qubeka programmes to donate bikes</td>
<td>Open street/cyclovia activities</td>
<td>Training of learners to ride bikes</td>
</tr>
<tr>
<td></td>
<td>Bike storage</td>
<td>Bike share schemes</td>
<td>Activations along completed cycle routes</td>
<td>Awareness programmes targeting other road users along cycle lanes</td>
</tr>
<tr>
<td></td>
<td>Bike park (for training and safe recreational/sport riding for children)</td>
<td>Bike service centre</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Transversal Cycle Jozi initiatives and partnerships

- **Cycle Jozi Forum**
  - Co-ordination of and feedback to government and stakeholder initiatives
  - Inclusive forum of all government and non-governmental stakeholders and cycling enthusiasts

- **Freedom Ride**
  - High profile bi-annual freedom ride to commemorate our freedom, build social cohesion and bring cyclists from across Johannesburg together

- **Cycle Jozi website**
  - Promote cycling, inform and create awareness
  - Can be linked to other social media (face book, twitter) and be platform for cyclists to inform City of potholes, dangerous point

- **Cycle Jozi Safety**
  - Distribute safety media materials (e.g. bumper stickers) and run safety activations and training
  - Could also do research and lobby for reduced speed limits, changes to SARTM for better bike signage, etc..

- **Cycle Jozi Week**
  - Proposed annual week which could include a workshop/conference/summit, cycle activation events and culminate in the Freedom Ride. Should be multi stakeholder
Thank you
NMT Facility Guidelines, 2014

Policy and Legislation

Planning

Design and Operations
CONTENT OF THE DOCUMENT

• Introduction
• Policy and Legislation
• Planning
• NMT Road Design Details
• Safety and Guidance
• End of Trip Facilities
• Capacity
• NMT Pavement Design
• Maintenance
• Operations
## INTRODUCTION

### Province Main Mode (%)

<table>
<thead>
<tr>
<th>Province</th>
<th>Public Transport</th>
<th>Private Transport</th>
<th>Walking all the Way</th>
<th>Other</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Car/Truck Driver</td>
<td>Car/Truck Passenger</td>
<td></td>
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<tr>
<td>Western Cape</td>
<td>35.7</td>
<td>34.3</td>
<td>10.9</td>
<td>17.7</td>
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<tr>
<td>Eastern Cape</td>
<td>32.6</td>
<td>24.5</td>
<td>8.3</td>
<td>34.1</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>15.5</td>
<td>24.7</td>
<td>14.1</td>
<td>43.4</td>
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<tr>
<td>Free State</td>
<td>29.7</td>
<td>26.7</td>
<td>7.1</td>
<td>33.7</td>
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<tr>
<td>Kwa Zulu Natal</td>
<td>44.4</td>
<td>25.2</td>
<td>7.1</td>
<td>21.6</td>
</tr>
<tr>
<td>North West</td>
<td>40.2</td>
<td>22.5</td>
<td>7.7</td>
<td>26.2</td>
</tr>
<tr>
<td>Gauteng</td>
<td>42.4</td>
<td>38.2</td>
<td>5.9</td>
<td>12.5</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>31.7</td>
<td>24.8</td>
<td>6.9</td>
<td>25.9</td>
</tr>
<tr>
<td>Limpopo</td>
<td>29.8</td>
<td>24.8</td>
<td>8.4</td>
<td>34.8</td>
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<tr>
<td>RSA</td>
<td>38.8</td>
<td>30.7</td>
<td>7.6</td>
<td>21.6</td>
</tr>
</tbody>
</table>

### Literature Scan

- Pedestrian and Bicycle Facility Guidelines, 2003
- Literature Identification Report

### Stakeholder Engagement

- Gap Analysis Report
- NMT Facility Guidelines Draft I, 2014
- NMT Facility Guidelines Draft II, 2014

### Literature Review

- Stakeholder Workshops
- NMT Facility Guidelines Final, 2014

### Road death rates

Source: Various
PLANNING

Step 1: Identify the main origins and destinations of cyclists for every zone.

- Main origin or destination

Step 2: Connect the destinations to the departure points with elastic threads (in the figure an example for two destinations).

- Main origin or destination

Step 3: Design cycle routes by bundling the elastic threads with pins. (In the figure the threads connected to two destinations are bundled, resulting in several cycle routes. If this is done with more destinations a network of cycle routes can be found.)

- Main origin or destination

Legend:
- Least sustainable
- Most sustainable
NMT ROAD DESIGN DETAIL

“All Road Users Need To Be Treated Equitably”
“All Road Users Need To Be Treated Equitably”

<table>
<thead>
<tr>
<th>Road Classification</th>
<th>NMT in Urban Areas</th>
<th>NMT in Rural Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bicycle</td>
<td>Pedestrian</td>
</tr>
<tr>
<td>1 Freeway</td>
<td>Total Separation</td>
<td>Total Separation</td>
</tr>
<tr>
<td>2 Major Arterial</td>
<td>Total Separation</td>
<td>Partial Separation</td>
</tr>
<tr>
<td>3 Minor Arterial</td>
<td>Partial / Total Separation</td>
<td>Partial Separation</td>
</tr>
<tr>
<td>4 Collector</td>
<td>Marked Separation</td>
<td>Partial Separation</td>
</tr>
<tr>
<td>5 Local Street</td>
<td>Priority Streets / Mixed</td>
<td>Partial Separation / Mixed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility</th>
<th>Parameter</th>
<th>Accepted Minimum</th>
<th>Recommended Minimum</th>
<th>Optimal</th>
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<tbody>
<tr>
<td>Pedestrian walkway - total separation</td>
<td>Min width</td>
<td>1.2m</td>
<td>1.5m</td>
<td>2m subject to capacity requirements</td>
</tr>
<tr>
<td>Pedestrian walkway – partial separation</td>
<td>Min width</td>
<td>1.2m</td>
<td>1.5m</td>
<td>3m subject to capacity requirements</td>
</tr>
<tr>
<td>Cycle Lane – total separation – two way</td>
<td>Min width</td>
<td>1.5m¹ (assure adjacent walkway space)</td>
<td>1.8m</td>
<td>2.0m subject to capacity requirements</td>
</tr>
<tr>
<td>Cycle Lane – partial separation – two way</td>
<td>Min width</td>
<td>1.5m¹ (check sight distances)</td>
<td>1.8m</td>
<td>2.5m subject to capacity requirements</td>
</tr>
<tr>
<td>Cycle Lane – marked separation – one way</td>
<td>Min width</td>
<td>1.5m</td>
<td>1.8m</td>
<td>1.8m subject to capacity requirements</td>
</tr>
<tr>
<td>Pedestrian walkway</td>
<td>Max Gradient</td>
<td>1:15</td>
<td>1:20</td>
<td>1:25</td>
</tr>
<tr>
<td>Cycle Lane/ Animal Drawn</td>
<td>Max Gradient</td>
<td>1:15</td>
<td>1:25</td>
<td>1:50</td>
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<tr>
<td>Pedestrian walkway</td>
<td>Min corner Splay²</td>
<td>2m</td>
<td>3m</td>
<td>5m</td>
</tr>
<tr>
<td>Cycle Lane</td>
<td>Min Radius</td>
<td>3m</td>
<td>5m</td>
<td>5m</td>
</tr>
<tr>
<td>Both</td>
<td>Total Separation: Distance from shoulder beak point</td>
<td>120 kph – 5m</td>
<td>120 kph – 7m</td>
<td>120 kph – 9m</td>
</tr>
</tbody>
</table>
NMT ROAD DESIGN DETAIL

“All Road Users Need To Be Treated Equitably”
NMT ROAD DESIGN DETAIL

“All Road Users Need To Be Treated Equitably”
NMT ROAD DESIGN DETAIL
“All Road Users Need To Be Treated Equitably”
SAFETY

• Signage
• Road marking
• Way finding
• Traffic calming

Good Examples

Bad Examples

Note: Yellow-on-Black pictogram should be larger
Bad example are made worst, due to design (shadows)

Where the slope of a kerb ramp is steeper than 1:8, the footrest of a wheelchair may hit the street surface, causing the chair to tip over.

Picture by Lisa Kane
Germany
SAFETY

• Signage
• Road marking
• Way finding
• Traffic calming
• Tactile paving
END OF TRIP FACILITIES

“Build them and they will come”
END OF TRIP FACILITIES
“Build them and they will come”

Public Transport
END OF TRIP FACILITIES

“Build them and they will come”

Bicycle Parking
END OF TRIP FACILITIES

“Build them and they will come”

Schools
**CAPACITY**

“Each NMT Facility should have an appropriate Level of Service”

<table>
<thead>
<tr>
<th>LOS</th>
<th>Random Situation</th>
<th>Platoon Situation</th>
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<tbody>
<tr>
<td></td>
<td>Space (m²/p)</td>
<td>Flow Rate (P/min/m)</td>
<td>Avg Speed (m/sec)</td>
<td>V/C Ratio</td>
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<tr>
<td>A</td>
<td>&gt;6</td>
<td>&lt;16</td>
<td>1.3</td>
<td>&lt;0.2</td>
</tr>
<tr>
<td>B</td>
<td>&gt;4 – 6</td>
<td>16 – 23</td>
<td>1.3</td>
<td>0.2 – 0.3</td>
</tr>
<tr>
<td>C</td>
<td>&gt;2 – 4</td>
<td>23 – 32</td>
<td>1.2 - 1.3</td>
<td>0.3 – 0.45</td>
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<tr>
<td>D</td>
<td>&gt;1 – 2</td>
<td>32 – 49</td>
<td>1.1 - 1.2</td>
<td>0.45 – 0.65</td>
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<td>E</td>
<td>&gt;0.7 - 1</td>
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<td>F</td>
<td>≤0.7 Variable</td>
<td>&lt; 0.8</td>
<td>Variable</td>
<td>≤1</td>
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</table>

![Graph showing Average Pedestrian Speed vs Flow Rate](image)

![Diagram of Hold Area](image)
The road to good NMT facilities is paved using appropriate material.

## NMT Paving Materials

<table>
<thead>
<tr>
<th>Type</th>
<th>Levelling</th>
<th>Stability</th>
<th>Friction/traction</th>
<th>Comfort</th>
<th>Noise</th>
<th>Recyclable material</th>
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<tr>
<td>Cobble</td>
<td>-</td>
<td>+</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>++</td>
<td>With Caution</td>
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<td>++</td>
<td>+</td>
<td>+</td>
<td>--</td>
<td>++</td>
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<td>Concrete pavers</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>--</td>
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<td>Concrete slabs</td>
<td>+++ (new)</td>
<td>++</td>
<td>++</td>
<td>++ (new)</td>
<td>--</td>
<td>---</td>
<td>No</td>
</tr>
<tr>
<td>Cast concrete b</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>++</td>
<td>--</td>
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<td>Pattern concrete</td>
<td>+</td>
<td>+++</td>
<td>++</td>
<td>--/+c</td>
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<td>With Caution</td>
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<tr>
<td>Asphalt</td>
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<td>Yes</td>
</tr>
<tr>
<td>Unsealed gravel</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>+++</td>
<td>No</td>
</tr>
<tr>
<td>Sealed gravel</td>
<td>++</td>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>Yes</td>
</tr>
</tbody>
</table>

a = friction of granite can be problematic  
b = Friction of poured concrete needs to be attended to during installation  
c = depending on the pattern
## MAINTENANCE/OPERATIONS

### Technical Tools
- IT, PMS
- Accounting Systems
- Performance Measurements

### Owner and Customer Needs
- Owners Objectives
- User Requirements
- Customer Satisfaction

### Business Arrangements
- Consultants Appointments
- Specifications
- Risk Sharing - PPGS
- Lifetime Costing
- New Types of Funding
- PPP

### Administrative Arrangements
- Organizational Reform
- Competition
- Privatization
- Outsourcing
- HR Development

### Information Aid

<table>
<thead>
<tr>
<th>Information Aid</th>
<th>What they provide</th>
<th>What they don’t provide</th>
</tr>
</thead>
</table>
| Oral instructions (Telephone information, bus operator, other passengers) | • Straightforward and personalised information  
• Simplicity for new users and those who have difficulty reading maps  
• Instant accessibility | • An overall picture of the transport system  
• Reference material for future or continued travel  
• Flexibility or easy error correction; if a user misses a step in the process; his or her frame of reference is lost unless he or she can converse further with the information source |
| Maps | • “Bird’s-eye” view of the transport system; spatial relationships of landmarks, routes and connections  
• Flexibility for changing trips plans supportive information during a trip  
• “Portable” information, useful for pre-trip and in transit | • Instant accessibility – a map is a physical object that a user must obtain before a trip can begin and map reading presents difficulties for many people  
• Electronic smartphone maps can be made available to those with a capable device. |
| Signs | • Information at “decision points”  
• Supportive information | • Detailed information and explanations  
• Portable information. No help during pre-trip planning or on-board |
| Timetables / Internet | • Portable information  
• Detailed route information | • Instant accessibility. Many users have trouble reading and using timetables |

### Maintenance/Operations

<table>
<thead>
<tr>
<th>Maintenance Need (R/sq./year)</th>
<th>Arterial</th>
<th>Collector</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10</td>
<td></td>
<td>R7</td>
<td>R5</td>
</tr>
<tr>
<td>Reconstruction and Upgrade Need</td>
<td>Depending on condition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NMT Facility Guidelines, 2014

Policy and Legislation

Planning

Design and Operations
Presentation outline

- Background
- Definition of NMT
- Access and mobility challenges
- Transport problems
- Benefits of NMT
- Legislative and policy framework for promoting NMT
- Achievements in implementing NMT
- Development of NMT Policy
- Main purpose of NMT Policy
- Policy imperative
- Way forward
Background

- 50% of the population of South Africa is rural
- 72% of the people in the rural areas are poor
- Poor people spent more than 20% of their salaries on transport
- Rural people have inferior access to basic social services and economic mainstream
- Delivery of rural transport infrastructure & services can be a catalyst for economic development
- Transport planners and engineers traditionally make provision for private, motorised transport
- To decrease congestion and the emission of greenhouse gasses NMT must be promoted and integrated with public transport
Definition of NMT

- walking
- cycling
- rickshaws
- wheelchairs
- animal drawn carts
- rollerblades
- skateboards
- Scooters
- wheelbarrow
Definition and examples of NMT
Access and mobility challenges in SA

- Transport is the backbone of South Africa’s socio-economic activities, through enabling the movement of people and goods.
- Apartheid planning left a legacy of transport networks that are poorly integrated, majority of poor people living in places far from work.
- The percentage of income poor people spend on transport is high.
- Most rural people have no access to road infrastructure or reliable public transport systems.
Transport problems

• In SA like other developing and emerging economies, the transportation burden faced by the rural, peri-urban and urban communities on a daily basis is real and substantial.

• Mobility and access to social services and the economic mainstream come at a high social and economic cost.
Transport problems (cont)

- Growing urbanization, congestion and demand for fossil fuel dictates a need for policy makers to start looking seriously at developing, implementing and promoting NMT as alternative and viable modes of transport.
The benefits of NMT

• NMT forms the most basic part of the transportation system and is generally recognized as a valuable component of the system due to the benefits it holds. These are:
  – environmental benefits – cleaner air
  – increased access and mobility
  – improved health and quality of life
  – economic development and increased activity
  – Social cohesion - vibrancy in the street environment
Legislative and policy framework for promoting NMT

- National Road Traffic Act 93 of 1996
- National Road Traffic Regulations, 2000
- White Paper on National Transport Policy 1996
- National Land Transport Transitional Act (NLTTA) no 22 of 2000
- National Land Transport Act (NLTA) no 05 of 2009
- National Land Transport Strategic Framework (NLTSF) 2006
- Moving South Africa Action Agenda
- Rural Transport Strategy 2007
Legislative and policy framework (cont)

- Draft NMT Policy 2008
- National Climate Change Response White Paper 2011
- Provincial Legislations
- Municipal Legislation/By-laws
Achievements in implementing NMT

- 2001 - Shova Kalula Bicycle programme (95 000 bicycles distributed to date)
- 2003 - Velo Mondial Bicycle conference
- Feb 2007: NMT Conference at Gallagher
- Aug 2007: NMT Rollout plan
- Nov 2007: Rural Transport Strategy
- Aug 2009: Launch of NMT prototypes (DISA)
- 2014: NMT Facility Guidelines
Development of NMT policy

- The 1996 White Paper on Transport Policy aimed to reduce dependence on private car and promote Public Transport (PT) and NMT (cycling, ADT & walking)
  - In 2007: Adoption of October as Transport month (to promote PT & NMT)
    - Rollout of 1 million bicycles over 10 years
    - NMT prioritized over private vehicles
  - In order to fast track the delivery of NMT infrastructure and services, there is a need to develop NMT policy
    - Stakeholder consultation: 2009 – 2010
    - 2011 COP17 (Decision on Climate Change)
The main purposes of NMT policy is-
- Set a direction on NMT implementation
- Establish units for NMT at all levels
- Influence dedicated funding for NMT by municipalities
- Better planning and integration of NMT into PT system
- Create Jobs - community repair centers/SMMEs
- NMT specifications and standards
- Have proper framework for regulating NMT
All people are entitled to reasonable access to basic services including those using NMT.

Safety and security is a priority for all NMT users, especially learners, adult pedestrians, cyclists and those using ADT.

Public Transport and NMT to be prioritised over private car use within shorter distances in urban areas.

Transport Impact Assessments to respond and address universal access and NMT requirements.
Policy imperative (Cont)

- All people (women, children, physically challenged and the poor) are entitled to equal levels of service to basic services.
- NMT will be employed as a tool to maximise economic gain through the promotion of low cost mobility and the creation of NMT-related employment opportunities.
- NMT considerations to be taken into account when planning new access, municipal or rural roads
- NMT planning and design to guide municipalities and provinces in providing NMT infrastructure
Way forward

- NMT policy to be approved
- Authorities to establish NMT units for better planning
- NMT to form part of ITPs and IDPs for budgetary approval
- NMT vehicular standards to be finalised
- NMT regulations to be developed
- NMT to be included in National Road Traffic Act
- Municipalities to develop their own By-laws
- Review of Pedestrian and Bicycle Facilities Guideline (NMT Facility Guideline)
- NLTA (review in process)
THE END

THANK YOU

KE A LEOBOGA

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SECOND NATIONAL NON MOTORISED TRANSPORT CONFERENCE

LESSONS LEARNT

“Successful Failures”

Date: 31 October 2014

Presenter: Mr G Van Eyck
IS NMT REALLY ABOUT BUILDING SIDEWALKS AND CYCLE LANES?

HAS NMT BECOME A CHECKLIST EXERCISE OF THINGS TO DO FOR IMPROVING OUR KPI’s OR INCREASING OUR FINANCIAL EXPENDITURE TO THE LATTER HALF OF THE FINANCIAL YEAR?

WHY ARE WE MAKING LITTLE IMPACT YET HAVING POLICY, FUNDING AND POLITICAL SUPPORT?

ARE WE BOLD ENOUGH IN OUR IMPLEMENTATION AND ENFORCE A CHANGE IN NORMS AND STANDARDS?

SHOULD WE CHANGE OUR APPROACH ON HOW WE IMPLEMENT NMT?
Reality of modern challenges

“I lost my son in an accident when a car drove into him while he was crossing the road. He was in a wheelchair and fell over as there was no facilities for him to cross”

“My sister was raped on her way from work one night walking from the bus stop. There was no streetlighting walking through the veld”
Surely it can’t be about building sidewalks and painting lines on roads anymore.

We must build people orientated neighbourhoods/CBD’s and shift our focus from car friendly environments to people friends environments.

Building sidewalks and cycle lanes must be supported by more radical supportive policies and interventions.
EXISTING NMT CHALLENGES

• Car is still king!!!!!!!!!
• We are not bold enough (NMT only corridors);
• No strategic network planning;
• Lack of NMT awareness and public education;
• Lack of educational programs (engineering departments/ infrastructure);
• Lack of uniform standards;
• Under-expenditure of grant funds leading to fiscal dumping on ad hoc implementation NMT projects
EXISTING NMT CHALLENGES

• Under-expenditure of grant funding leading to fiscal dumping on ad hoc implementation NMT projects
• NMT budgets are not ring-fenced;
• Ad Hoc cross departmental implementation;
• No mandatory NMT investment required in Planning applications (Policy);
• Lack of authority and power of departments responsible for NMT implementation;
• Investment of NMT projects in areas of little impact;
• Dependency on national fiscus for funding;
EXISTING NMT CHALLENGES

77% OF TRIPS ARE BY PT AND NMT
PARADIGM SHIFT TO IMPLEMENTATION THROUGH AN HOLISTIC APPROACH

EDUCATION/SKILLS DEVELOPMENT

AWARENESS

DEVELOPMENT OF POLICIES FORCING PRIORITIZATION OF NMT

INTEGRATION

MAX INVESTMENT MAX IMPACT

UNIFORM STANDARDS

STRATEGIC PLANNING
We must be bold and redesign our junctions for enhanced pedestrian safety.

On street parking provision must be limited and premium charge.

NMT infrastructure must incorporate streetlighting, landscaping, tactile paving etc.

Developers must contribute to the development of the NMT network.

Incorporation of universal access guidelines throughout.

Reduce the LOS in urban centres by introducing TCM and speed restrictions.

Challenging technical constraints.
CURRENT KEY NMT INITIATIVES

- PAUL KRUGER TRANSIT MALL
- OPERATIONAL RECLAIM: CITY OF TSHWANE
- CHURCH STREET TRANSIT MALL: POLOKWANE
- GOVAN MBEKI AVENUE REVITALIZATION: NELSON MANDELA BAY
- SCHOLAR AWARENESS PROGRAM: POLOKWANE
- ST ANDREW TRANSIT MALL: MANGAUNG
- PARK ROAD NMT: MANGAUNG
- CORRIDORS OF FREEDOM: CITY OF JOHANNESBURG
- NELSON MANDELA DRIVE NMT CORRIDOR: POLOKWANE
- SMART MOBILITY CITY: POLOKWANE
- COMPLETE STREETS: CITY OF JOHANNESBURG
- IRPTN IMPLEMENTATION
- NMT THEME PARK: POLOKWANE
CBD REGENERATION CONCEPT PROPOSALS

- Removal of on street parking to off street;
- Convert back to two way street;
- Single mix traffic lane;
- Two bi-directional brt lanes;
- Upgraded sidewalks;
- Traffic restrictions at the square;
- Planting of trees and modern street furniture;
- BRT Station at Hoffman Square;
- Linear corridor linking rail station/intermodal facility to waterfront/Bloem Stadium

ST ANDREWS TRANSIT MALL
POLOKWANE NMT THEME PARK
THE END

BE BOLD GO BIG