

## KHUTHELE PROJECTS (PTY) LTD

### NELSON MANDELA BAY MUNICIPALITY: PUBLIC TRANSPORT PLAN

In 2004, the Nelson Mandela Bay Municipality (NMBM) started a process of preparing a Public Transport Plan (PTP) as a component of an Integrated Transport Plan (ITP) for its jurisdiction, as required by national legislation. The PTP reviews the current status of bus, taxi and train services in the NMBM and analyses future scenarios. The plan determines a Long Term Strategy for the public transport system, a Short Term Implementation Plan and a Funding Plan. The PTP has been integrated with the ITP to provide a comprehensive multi-modal solution for the future transport needs of the metropolitan area. The long-term development proposal for the public transport system is based on the results from an analysis of several possible scenarios. The conclusions from the scenario analysis are that an Integrated Public Transport System (IPTS) with scheduled services, based on trunk bus routes with complementary feeder and main route systems will best serve the communities of NMBM.

#### The Proposed Public Transport System

The long-term public transport system will be characterised by some important qualities. The system will consist of integrated and regulated public transport which will be modern and attractive offering seamless travelling with through-ticketing on contracted scheduled services. A trunk bus network will be developed in the defined public transport corridors. Certain of these routes will have dedicated median bus lanes and will be operated on Bus Rapid Transit (BRT) principles with modern, articulated buses. These will cater for people with special needs, such as persons in wheelchairs and the system will aid general mobility by incorporating the concept of universal accessibility. The implementation planning for a scheduled public transport service is currently being undertaken in consultation with all stakeholders. The NMBM area has been divided into five contract areas based on current operations. Services in each area will form the basis of an operating contract for the provision of the new scheduled services in that area. Operators, including the existing minibus taxi operators and Algoa Bus Company, wishing to operate in the new public transport system are being encouraged to establish formal, legal, entities with which the Eastern Cape Department of Roads and Transport, or a duly established Transport Authority, can conclude the contractual agreements. In order to empower the current minibus operators to formalise their business, and to guarantee their participation, a negotiated contract is preferred to an open tender process. The contracts will incorporate a mechanism to recapitalise the minibus fleet, in accordance with the national government's Taxi Recapitalisation Project, in a phased manner, for use in providing the new services.

#### The Role of Khuthele Projects

**Khuthele Projects** has been fortunate to be part of the team responsible for the planning and implementation of the IRPTN in Nelson Mandela Bay since the appointment in **25 October 2006** and the extension of appointment received on **29 September 2008**. Khuthele's role so far can be summarized in the following main tasks

- **Liaison and Consultation:** The project team facilitated meetings with the client, the Steering Committee, Government (National and Provincial) Departments, consultants and with the bus and taxi operators. These liaison meetings were held on a regular basis and are still ongoing.
- **Preparation of Contracts and Monitoring Documents:** The NMBM area has been divided into five contract areas based on current operations. Services in each area will form the basis of an operating contract for the provision of the new scheduled services in that area. In order to empower the current minibus operators to formalise their business, and to guarantee their participation, a negotiated contract is preferred to an open tender process. A model contract was developed for the proposed five (5) contract areas.
- **Marketing & Passenger Information:** The project team prepared the specifications and contract documentations for a marketing and communications service provider for the IPTS for NMBM. The project team assisted with the tender evaluation process and delivered an evaluation and adjudication committee report. During the tender evaluation period, the project team liaised with tenderers on behalf of NMBM. Media statements and presentations about the IPTS have been prepared for NMBM Communications Office.



- **Control / Call Center:** In this task Khuthele assisted with the preparation of a Concept of Operations Report for the proposed IRPTN/IPTS Control / Call Center. Linked to this was the execution of an Options Analyses to determine the desired location of the center. An Operations Manual was also prepared to provide detailed policies and procedures and to provide governance and guidance for the behaviour of personnel of the Control and Call Centre. Khuthele managed the implementation and operations of the Transport Operations Center (TOC) of the NMBM for the 2010 FIFA World Cup and this successful experience provided a good platform for the further refinement and implementation of the IRPTN/IPTS Control / Call Center in the city.
- **ITS and Fare Collection:** This assignment consisted of three main sub-tasks, i.e. (1) the preparation of a User Requirement Specification for the Automated Fare Collection System (AFC) of the NMBM; (2) the preparation of a User Requirement Specification for the Advanced Public Transport Management System (APTMS) in the city and (3) the preparation of tender documentation for the final design, installation, operation and maintenance of both the AFC and APTMS. These tasks are currently in progress.
- **PTIS Funding Applications:** Khuthele assisted the NMBM in 2007, 2008 and 2010 with the preparation of funding applications to the Department of Transport's Public Transport Infrastructure and Systems Fund. These funding applications were typically prepared and submitted in July/August of those years.

**Evaluation of the most appropriate BRT system: Khuthele Projects,** in 2008, was requested to evaluate and make recommendations on the most appropriate Bus Rapid Transit (BRT) system for NMBM given the unique characteristics of its urban layout and transport needs. NMBM is unique in many aspects which impacts on the type of BRT best suited for the area as briefly discussed below:

- **NMBM is small in relation to other metropolitan areas** in South Africa with less traffic congestion especially in the outlying areas. **This allows for less urgency in the rate at which the BRT infrastructure is to be implemented** especially in the areas further away from the urban core.
- Certain sections of the trunk, main line and express bus services overlap and it will be beneficial if all of these services could make use of the same infrastructure.
- Certain trunk bus routes are along roads with very **limited roadway widths**, making it very difficult to fit in median bus lanes along these road sections.
- **The intention is to gradually construct the final BRT network in phases.** Ideally, BRT vehicles should be flexible enough to operate on both those route sections where the BRT infrastructure has been completed, as well as the continuation of the route up to where it terminates at the public transport terminus, even should the infrastructure along such section not yet being constructed.
- The construction of high bus platforms on the kerb-side of the road as a temporary measure presents its own challenges especially where this has to be provided in narrow Right of Way.

**Three different BRT options were identified for evaluation.** The baseline option was the option preferred by DOT. The other two options were both low floor options as far as the buses are concerned meaning a deviation from the uniform BRT characteristics as has been generally accepted in South Africa. The second option required split median stations due to the BRT vehicles only having doors on the left side of the vehicle. **The third option only marginally differed from the option preferred by DOT as doors are provided on both sides of the vehicle.** From the evaluation it was concluded that a BRT system with central median stations and low platform heights, and serviced by low floor buses with doors on both sides of the vehicle, is the preferred option for NMBM. It was recommended that the application of this option be further researched especially concerning the costs in relation to that of high-floor vehicles.

