PUBLIC TRANSPORT PLAN

August 2005

eThekwini Transport Authority
# CONTENTS

1 INTRODUCTION ........................................................................................................................................ 1.1

2 PUBLIC TRANSPORT VISION AND GOALS .................................................................................. 2.1
   2.1 NATIONAL AND PROVINCIAL DOT TRANSPORT VISIONS ..................................................... 2.1
   2.2 eTHEKWINI IDP VISION & CITY DEVELOPMENT STRATEGY ........................................... 2.3
       2.2.1 IDP Vision .......................................................................................................................... 2.3
       2.2.2 South African Cities Network City Development Strategy ...................................... 2.4
       2.3 THE ETA’S TRANSPORT MISSION STATEMENT .............................................................. 2.7
       2.4 THE ETA’S PUBLIC TRANSPORT GOALS ........................................................................ 2.8

3 BROAD PUBLIC TRANSPORT POLICY ......................................................................................... 3.1
   3.1 PROPOSED POLICY FOR EFFECTIVE PUBLIC TRANSPORT ................................................. 3.3
   3.2 PROPOSED POLICY FOR EFFICIENT PUBLIC TRANSPORT ................................................ 3.6
   3.3 PROPOSED POLICY FOR SUSTAINABLE PUBLIC TRANSPORT .......................................... 3.11
   3.4 PROPOSED POLICY FOR SAFETY & SECURITY IN PUBLIC TRANSPORT .......................... 3.15
   3.5 BLACK EMPOWERMENT IN PUBLIC TRANSPORT ............................................................... 3.16

4 CURRENT PUBLIC TRANSPORT RECORD (CPTR) .................................................................... 4.1
   4.1 EXTENT OF SURVEY ................................................................................................................ 4.1
   4.2 CONTENT OF SURVEY ............................................................................................................ 4.4
   4.3 PUBLIC TRANSPORT SYSTEM - KEY SURVEY RESULTS .................................................... 4.5
       4.3.1 Rail System Component .................................................................................................... 4.5
       4.3.2 Bus System Component .................................................................................................. 4.5
       4.3.3 Minibus Taxi System Component ................................................................................. 4.6
       4.3.4 Busiest Public Transport Activity Node ....................................................................... 4.6

5 METERED TAXI .................................................................................................................................... 5.1
   5.1 INTRODUCTION ......................................................................................................................... 5.1
   5.2 SIZE OF eTHEKWINI METERED TAXI INDUSTRY .............................................................. 5.1
   5.3 METERED TAXI ROUTES AND OPERATIONS .................................................................. 5.2
   5.4 RANKS IN eTHEKWINI ........................................................................................................... 5.3
   5.5 POLICIES AND STRATEGIES .................................................................................................. 5.3

6 LONG TERM TRENDS .............................................................................................................................. 6.1
   6.1 INTRODUCTION ........................................................................................................................ 6.1
   6.2 GROWTH AND TRAVEL PROJECTIONS ............................................................................. 6.1
       6.2.1 Population and Employment .......................................................................................... 6.1
       6.2.2 Travel Projections and Modal Split ............................................................................. 6.2
   6.3 IMPACT OF THE TREND LAND USE ON THE TRAVEL PATTERN .................................. 6.3
   6.4 IDP RESPONSE TO DEVELOPMENT TREND ................................................................... 6.6

7 TRANSPORT DEMAND MANAGEMENT ............................................................................................ 7.1
   7.1 BACKGROUND .......................................................................................................................... 7.1
   7.2 GROWTH TRENDS AND TARGET MODAL SPLIT ................................................................ 7.1
       7.2.1 Growth Trend ..................................................................................................................... 7.1
       7.2.2 Implications of ‘Do Nothing’ ......................................................................................... 7.1
       7.2.3 Target Modal Split ......................................................................................................... 7.2
   7.3 MODAL SPLIT MONITORING .................................................................................................. 7.4
   7.4 TDM MEASURES ....................................................................................................................... 7.5
       7.4.1 Private Transport Measures ............................................................................................ 7.6
       7.4.2 Public Transport Measures ............................................................................................ 7.6
       7.4.3 Land Use Development and Management Measures .................................................. 7.7
       7.4.4 Policy and Institutional Measures ................................................................................ 7.7
   7.5 eTHEKWINI’S TRANSPORT MANAGEMENT STRATEGY .................................................. 7.12
   7.6 CONGESTION MONITORING ................................................................................................. 7.14
8 THE ETA'S PUBLIC TRANSPORT STRATEGY

8.1 BACKGROUND ................................................................. 8.1
8.2 THE EXISTING PUBLIC TRANSPORT SYSTEM ........................................ 8.1
  8.2.1 System Description .......................................................... 8.1
  8.2.2 Rail System, Service Characteristics and Issues .................................................. 8.5
  8.2.3 Bus System, Service Characteristics and Issues .................................................. 8.5
  8.2.4 Taxi System and Service Characteristics and Issues ............................................. 8.6
  8.2.5 Combined System Issues .................................................................................. 8.7
8.3 PUBLIC TRANSPORT SYSTEM PROPOSALS ............................................. 8.7
  8.3.1 Introduction .............................................................................. 8.7
  8.3.2 Alternative Public Transport Systems Tested ...................................................... 8.8
  8.3.3 The Proposed System .......................................................................... 8.9
8.4 MODAL STRATEGIES ................................................................. 8.11
  8.4.1 Introduction .............................................................................. 8.11
  8.4.2 Rail Modal Strategy ........................................................................ 8.11
  8.4.3 Bus Modal Strategy ...................................................................... 8.14
  8.4.4 Minibus Taxi Modal Strategy ..................................................................... 8.14
8.5 PUBLIC TRANSPORT SYSTEM AND SUPPORTING LAND USE STRATEGIES ............. 8.15
  8.5.1 Introduction .............................................................................. 8.15
  8.5.2 Public Transport Nodes and Corridors ......................................................... 8.15
  8.5.3 Spatial Strategies in Support of the Priority Public Transport Network .................. 8.17
9 OPERATING LICENCE STRATEGY (OLS) ...................................................... 9.1
  9.1 PURPOSE OF THE OLS .................................................................. 9.1
  9.2 GENERAL PRINCIPLES .................................................................. 9.1
    9.2.1 Licence Allocation Principle ...................................................................... 9.1
    9.2.2 Licence Validity Period ........................................................................ 9.2
    9.2.3 Transfer of Licence .............................................................................. 9.3
    9.2.4 Number of Taxi Routes per Licence ......................................................... 9.3
    9.2.5 Preparation of Recommendations ............................................................ 9.4
  9.3 CONDITIONS FOR GRANTING OF LICENCES ............................................... 9.4
    9.3.1 Person Qualifying for Operating Licence ................................................ 9.4
    9.3.2 Membership per Route ........................................................................ 9.5
    9.3.3 Vehicle Standards and Equipment ........................................................... 9.5
    9.3.4 Access to Ranking .............................................................................. 9.6
    9.3.5 Access to Holding for Minibus Taxi Operators ......................................... 9.6
    9.3.6 Service Levels for Minibus Taxi ............................................................... 9.6
    9.3.7 Timetable and Fare Data ...................................................................... 9.7
  9.4 LICENCE APPLICATION AND APPROVAL PROCESS .................................. 9.7
    9.4.1 The Process ...................................................................................... 9.7
    9.4.2 The ETA's Administrative Structure ......................................................... 9.8
  9.5 PUBLIC TRANSPORT ENFORCEMENT STRATEGY ................................... 9.8
  9.6 OPERATING LICENCE STRATEGY ANALYSIS - PARAMETERS AND CRITERIA .... 9.9
  9.7 CATEGORIES OF EVALUATION .................................................................. 9.11
  9.8 ANALYSIS ....................................................................................... 9.12
    9.8.1 Corridor Analysis ............................................................................... 9.12
  9.9 INDIVIDUAL ROUTES EVALUATION ....................................................... 9.18
    9.9.1 Taxi Association Evaluation ................................................................... 9.21
    9.9.2 Subsidised Bus Contracts ...................................................................... 9.23
    9.9.3 Rail Services .................................................................................... 9.24
10 IMPLEMENTATION STRATEGY ........................................................................ 10.1
  10.1 INTRODUCTION ............................................................................. 10.1
  10.2 UNFOLDING OF THE PUBLIC TRANSPORT STRATEGY ......................... 10.1
  10.3 RAIL STRATEGY ............................................................................. 10.2
  10.4 BUS STRATEGY ............................................................................. 10.3
  10.5 MINIBUS TAXI STRATEGY ............................................................. 10.4
  10.6 NON-MOTORISED TRANSPORT (NMT) STRATEGY ................................. 10.5
  10.7 SPECIAL NEEDS PUBLIC TRANSPORT STRATEGY ................................. 10.6
  10.8 INTERMODALISM STRATEGY ............................................................. 10.7
ANNEXURES

A  SERVICE AND TRIP CHARACTERISTICS  A.1-A.6
B  ENFORCEMENT SERVICE AGREEMENT  B.1-B.4
C  SERVICE LEVEL AGREEMENT FOR PUBLIC TRANSPORT LAW ENFORCEMENT C.1-C.7
The Public Transport Plan (PTP) forms a component part of the Integrated Transport Plan (ITP). It includes a long term strategic plan which provides the context for short term planning. Projects from the short term planning components of the PTP are carried forward into the ITP as a part of the 2005-2010 programme.

This document, being the first Public Transport Plan for eThekwini in terms of National Transport legislation sets out the proposed mission statement, goals and broad public transport policy. It also describes the current and future public transport systems.

The Current Public Transport Record (CPTR) as described in this report is based on public transport service data collected from August 2003 to August 2004.

The Operating Licence Strategy (OLS) which also forms a part of the PTP gives direction to the decisions of the Operating Licence Board (OLB) in respect of issuing of, or changes to public transport licences required in terms of the public transport planning.

The Rationalisation of subsidised bus services (RAT) Plan has not been developed as a separate plan, but the general principals incorporated into the OLS.

When each subsidised contract needs to be re-tendered, a detailed rationalisation plan needs to be undertaken with current information.

The policy contained within the PTP and the proposed public transport system give clear direction to the formulation of the implementation strategy documented in this report.

The public transport plan including the operating licence strategy is a living document constantly under review and responsive to the impact of planning decisions in achieving the City’s vision for transport.
As the first version of the PTP, this document provided the basis for an extensive consultation process within the context of the ITP. This has enabled the newly established transport authority to review, confirm, revise and consolidate a programme of plans and actions which give effect to an agreed way forward for public transport in the eThekwini area.
Vision creates the framework for the definition of goals and the development of policy. This section defines the eThekwini Transport Authority’s vision and the goals that are attached to this vision. The vision for public transport is framed within the vision for transport overall. It has been developed within the context of the national and provincial visions for transport.

Public transport has a major influence on development. At the same time it is impacted by development and land use. Consequently, the ETA’s vision for public transport recognises the imperatives of the IDP vision and sets a framework for goals and related policy which will have a positive impact on development and activities in the metropolitan area.

2.1 National and Provincial DOT Transport Visions

The national visions are as follows:

**NDOT Vision for Transport:**

“Provide safe, reliable, effective, efficient, and fully integrated transport operations and infrastructure which will best meet the needs of freight and passenger customers at improving levels of service and cost in a fashion which supports government strategies for economic and social development whilst being environmentally and economically sustainable:

**NDOT Vision for Public Transport:**

“Promote a safe, reliable, effective, efficient, co-ordinated, integrated and environmentally friendly land passenger transport system in South Africa urban and rural areas, and the southern African Region, managed in an accountable manner to ensure that people experience improving levels of mobility and accessibility”
The KwaZulu-Natal vision is strongly aligned with the National vision, with added emphasis on improved quality of life for public transport users, along with sustainability and support for economic and social upliftment.

The Provincial vision reads as follows:

“To improve the quality of life of public transport users and to enhance the viability of all sectors reliant on public transport within KwaZulu-Natal, through the development of a safe, efficient, effective, economically and environmentally sustainable public transport system which drives the economic and social upliftment of the Province”

Key issues and concerns for public transport that emerge from these statements are:

- safety
- reliability
- effectiveness
- efficiency
- affordability
- integration
- improved levels of accessibility and mobility
- quality of life
- support for economic and social upliftment
- economic and environmental sustainability

Collectively, these perspectives on transport give direction to local authority vision, goals and policy for transport and within that context, public transport.

Further direction is provided by the eThekwini IDP vision as set out in the next section.
2.2 eThekwini IDP Vision & City Development Strategy

2.2.1 IDP Vision

The following is eThekwini’s IDP vision statement:

**IDP Vision for eThekwini:**

*By 2020, eThekwini Municipality will enjoy the reputation of being Africa’s most caring and liveable city, where all citizens live in harmony. This Vision will be achieved by growing its economy and meeting peoples needs so that all citizens enjoy a high quality of life with equal opportunities, in a city that they are truly proud of.*

The ways in which public transport can contribute to a high **quality of life** in terms of the broad objectives of the IDP vision are:

1. **Meet people’s needs through:**
   - improved access to opportunity
   - safe, affordable, efficient and effective public transport
   - reliable, convenient public transport ensuring employees can arrive on time without undue discomfort from adverse weather

2. **Grow the economy through:**
   - dependable public transport supporting a stable workforce for industry
   - opportunities for growth within the public transport industry

3. **Build people skills and technology by:**
   - providing assistance and creating opportunities for SMME’s to participate in various aspects of the public transport industry
   - applying effective technology for security, good communications to passengers, operating safety and efficiency
   - by ensuring services and infrastructure are environmentally acceptable
2.2.2 South African Cities Network City Development Strategy

South African Cities Network (SACN) has developed and adopted a City Development Strategy with four primary programmes as shown in the following diagram.

This framework provides a context for the development of transportation policy and system strategy which lends support to the eThekwini IDP vision set out above.

The following description relates transportation to each of these four programmes highlighting the major role transport can play in the development of a dynamic, well-balanced city.

**Transportation and the Productive City**

It is almost universally accepted that transport has played a predominant role in the economic development of all modern civilisations. Production and consumption on the scale and tempo of today would be inconceivable without a well developed and operated transport system forming a vital link in supply chain management logistics. The provision of safe, effective, efficient and affordable transport is the cornerstone of sustainable economic and social development. Conversely, it has been observed that an underdeveloped or poorly maintained transport system acts as a serious constraint on economic growth.

- Efficient transport is an essential component in the production and distribution process. Increased transport efficiency contributes directly towards lower production costs which encourages more consumption and production.
It facilitates domestic competition and makes exports more attractive in the world of competitive globalisation.

An effective transport system can therefore increase the commercial and labour market efficiency of a city, and help provide an attractive platform for investors, and thereby grow the economy and create jobs.

Productivity of the workforce, which is an area of possible competitive advantage, is negatively impacted on by unduly long travel times due to poor transport planning and infrastructure.

Mobility is critical for people to access jobs.

Transportation and the Inclusive City

Accessibility is a basic, daily need for almost all the residents of a city. A transportation system provides access to business, social and recreational opportunities, which is fundamental to experiencing a good quality of life. This is especially important for the poor and the fight against poverty.

An efficient public transport system allows the poor to access job opportunities, perhaps the single most effective way of dealing with poverty reduction.

Transport imposes a daily cost on the poor. It has been estimated that in developing Africa, the poor can spend up to 30% of their income on transport alone. This results in less money for essential items such as food, clothing, education and medical treatment.

Due to high transport costs, the poor only travel out of necessity, resulting in social seclusion. This is particularly damaging, as social relations are often a safety net for the very poor in many societies.

Accessibility for the physically challenged needs to also be addressed holistically.

Road safety in urban areas is of major concern. South African cities have a very poor accident record, with a high proportion of accidents involving pedestrians and children. Obviously, this has direct and major impact on quality of life.
Transportation and the Sustainable City

Transport can be a large consumer of economic resources, typically in the form of high transport subsidies and massive investment in infrastructure. The transport sector therefore has a responsibility to maximise the use of existing infrastructure and where possible to reduce subsidies in the process of providing a sufficient transport system.

Also, spatially efficient land-use patterns, that support public transport and minimise congestion are critical to long-term sustainability.

Transportation also has a significant impact on the environment, which has implications for the quality of life experienced by residents of a city.

- Atmospheric pollution: The transport sector is a major user of non-renewable fossil fuels and the highest source of greenhouse gas emissions. Other emissions include lead, carbon monoxide and other oxides, which are all detrimental to health and therefore quality of life.

- Noise: Traffic generated noise pollution, although not at levels to be considered a hazard, does considerably reduce quality of life.

- Severance: Heavily trafficked roads in particular are dangerous and difficult to cross, causing community severance.

- Excessive land take for new roads due to poor public transport resulting in low utilisation and traffic congestion.

Taking these problems into consideration, there is a strong case to be made for developing and sustaining an efficient public transport system. In doing so there is also a strong case to be made for promoting public transport over private transport in developing transport system solutions.
Transportation and the Well-governed City

Local government faces huge developmental challenges, placing great demand on urban governance and management. Good governance demands inclusion and representation from all groups in society, and requires accountability, transparency and integrity in defining and pursuing goals.

Two issues are critical from a transport point of view:-

- First, the provision of basic access to allow all sectors of society, especially the poor and marginalised, to participate in the democratic processes. An effective, affordable Public Transport system is of particular importance;

- Secondly, the transport sector needs capacity to fulfill its public responsibilities in terms of knowledge, skills and resources.

2.3 The ETA’s Transport Mission Statement

Within this context of the national vision for transport and eThekwini’s IDP vision the following is the ETA’s mission statement for transport. Prior to establishment of the eThekwini Transport Authority, Council was only responsible for fixed transport infrastructure. With the establishment of the ETA this responsibility now extends to the provision, management and control of all of the following:-

- Transport infrastructure
- Public transport services
- Modes and fleet

The following mission statement recognises and responds to this wider role and responsibility for transport.

**ETA’s Transport Mission Statement:**

“To provide and manage a world-class transport system with a public transport focus, providing high levels of mobility and accessibility for the movement of people and goods in a safe, sustainable and affordable manner.”
2.4 The ETA’s Public Transport Goals

The extension of ETA’s vision into goals for public transport has identified five basic goals which directly support the main thrust of eThekwini’s IDP. They are the following:

- Goal 1: Effective Public Transport
- Goal 2: Efficient Public Transport
- Goal 3: Sustainable Public Transport
- Goal 4: Safe and Secure Public Transport
- Goal 5: Black Empowerment

These are unpacked in the following section to create a framework for the ETA’s public transport policy.
The five planning goals for public transport are a framework for identifying the basic characteristics of the future public transport system for the eThekwini metropolitan area. As set out below these characteristics expand the definition of each goal thereby giving direction to the formulation of the ETA’s public transport policy.

The measurement of the attainment of goals is achieved through the monitoring of key performance indicators (KPI's). The particular KPI's that relate to each goal are shown below and described in Section 12 of this report.

**Goal 1: Effective Public Transport**

- Needs driven
- Inclusive of Special Needs groups
- Promotes PT over private transport
- Subscribes to a quality service charter
- Increases mobility and accessibility
- Targets use of subsidy
- Recognises needs of the poor

**Relevant KPI's:**
- Passenger satisfaction with public transport service
- Promotion of use of public transport
- Promotion of accessible and affordable public transport

**Goal 2: Efficient Public Transport**

- Regulates all modes and reduces duplicated services
- Optimises role/positioning of modes
- Improves system cost efficiency
- System integration (fares & services)
- Land use integration

**Relevant KPI's:**
- Effective regulation and control of public transport vehicles
- Road-based public transport service regulation and legislation
- Efficient rail service
- Efficient bus operation
- Taxi Re-capitalisation progress
- City compactness
Goal 3: Sustainable Public Transport

- Financially
- Environmentally
- Technologically
- Adequate skills & resources
- Adequate maintenance

**Relevant KPI's:**
- Good delivery of public transport projects
- Land-use restructuring
- Effective regulation and control of public transport vehicles
- Road-based public transport service regulation and legislation

Goal 4: Safe & Secure Public Transport

- Personal security at P.T. ranks, rail stations and in-vehicle
- Safety from accidents at P.T. ranks, rail stations and in-vehicle

**Relevant KPI's:**
- Improved public transport security
- Improved public transport safety

Goal 5: Black Empowerment

- Participation in contracts
- Investment opportunities
- Training and support

**Relevant KPI's:**
- Extent of ownership & participation in public transport and related activities
- Procurement of PDI services
National legislation has assigned a wide range of new responsibilities for public transport to local level government. A part of this responsibility involves the preparation of a comprehensive policy framework reflecting the over-arching policy of national government. This is a complex process which requires policy to be developed over a period of years.

During this period the inter-active impact of public transport policy on other sectors of service provision and development within the metropolitan areas will become more apparent. At the same time, various related projects and investigations will be carried out providing additional information which impacts on policy.

This document, the first Public Transport Plan for eThekwini, provides the public transport policy framework which will be further developed and refined over years to come.

In some instances projects have already been identified which can give support to refining or implementing a particular policy. In such cases a description of the project follows the policy statement.

3.1 Proposed Policy for Effective Public Transport

To be effective public transport should be promoted over private transport. It should be customer-focused and needs-driven. Recognising the differences between the needs of urban and rural areas, different standards of service should be used to provide appropriate, affordable levels of access to opportunity for different segments of the community.

Within this context, the ETA’s public transport policy is the following:-

No.1 To identify and prioritise accessibility and mobility needs in terms of market segments based on categories defined in NDOT’s Moving South Africa (MSA) Report. These are:-

- the ‘strider’ those who walk or cycle
- the ‘stranded’ those without access to affordable public transport
- the ‘survival’ public transport passengers those who are ‘captive’ to the least expensive transport option
➢ the ‘sensitive’ commuters who can afford the best forms of public transport but are dissatisfied with available service

➢ the ‘selective’ commuters can afford a car but will use public transport if service meets their needs and expectations

➢ the ‘stubborn’ commuters who will choose private transport over public transport irregardless of options available

Further in keeping with international best practice in promoting the upliftment of the urban poor by increasing their accessibility to economic and social opportunity, through improved public transport, the ETA’s policy is:-

No. 2 To promote public transport over private transport.

No.3 To provide an affordable, sustainable PT system in response to the prioritised needs of the market segments, acknowledging the importance of accessibility to social, economic, educational and recreational opportunities, but recognising it is unaffordable to provide the same level of service to users in urban and rural areas.

In the rural areas access to employment, the transport needs of learners, and access to health facilities are priorities.

For public transport to be needs-driven and customer-focused it must effectively place the commuter at the centre of public transport policy.

Currently, there exists an eThekwni Transport Forum that is representative of the various communities in all wards and as such can be used as the vehicle for developing an understanding of passenger needs. In the longer term the representative voice of the community in matters of public transport could be further strengthened by rationalising and integrating the activities of various groups who provide input on such matters.

In this regard the ETA’s policy is:-

No.4 To support and develop the capacity of the existing and future consultation structures to enable them to articulate the needs of the different passenger groups for incorporation into a Passenger Service Charter.
**Related Project:**

*The Passenger Service Charter (PSC) is needed in the short term to provide input to the formulation of the Quality Service Charter (See No.7). To achieve this a project will be initiated to empower and equip the Forum and facilitate the process of developing the PSC.*

Effective public transport must recognise and provide for all categories of Special Needs passenger groups. These groups include the physically disabled, the deaf, the unsighted, children, the elderly, pregnant women, the illiterate and foreign tourists. Their unique needs are quite different and it would be unrealistic to expect all services throughout the system to cater for these widely different needs. Within this context therefore and in line with national policy, the ETA’s policy is the following:

**No.5**
To implement accessible public transport for Special Needs passengers through a combination of specialised services (eg. dial-a-ride) and universally accessible mainstream services where appropriate, subject to resource constraints.

To give effect to this the ETA will give input to the SARCC to assist in developing a programme for fleet upgrading as well as upgrading of rail stations and fleet to full accessibility standards within these corridors.

**No.6**
To ensure that where appropriate new bus contracts have a minimum percent of fleet designed for special needs access, and all new fixed infrastructure is fully accessible.

For public transport to be both effective and efficient it is essential for all modes of the system to be regulated within the structure of a Public Transport Plan. Various policies and programmes are needed before full regulation can be achieved including, inter alia, the basis for compensation for removal of operator licences, the devolution or control over the rail function, and control over the roll-out of the Taxi Re-cap programme in the metro area. In the absence of these conditions being met in present circumstances however, there is an opportunity and need to establish standards for the operation of public transport services in the form of a Quality Service Charter (QSC).
Effective public transport must operate to acceptable standards in every aspect of its performance. Such standards defined by the ETA with input from the Community in terms of the passenger service charter (refer No. 3 above) must be subscribed to and enforceable on the operators providing the public transport services.

In this regard it is the ETA’s policy:-

No.7 To manage all modes of public transport service, within a Quality Service Charter which addresses, inter alia, matters of reliability, differentiated levels of service (coverage, hours of service, frequency) convenience and comfort, standards of operation, fare structures, communication and information services, vehicle age and servicing requirements and code of conduct for operator/driver behaviour.

No.8 To support formalisation and re-capitalisation of the taxi industry and to apply various fleet age criteria to all future contracts (subsidised and unsubsidised) for all modes of road-based public transport vehicles.

Related Projects:-

In support of Policy No. 8, a project will be initiated to develop a comprehensive Quality Service Charter which will address the above.

3.2 Proposed Policy for Efficient Public Transport

Efficiency in public transport has many dimensions. It encompasses amongst others:

- system and service efficiency which impacts on reliability and quality of service to the users
- cost efficiency which is necessary for sustainability
- mode efficiency which requires the appropriate use of each mode and combinations of modes. This may require some form of regulation and integration of services provided by the various modes in the system.
- Efficient inter-action of the transport/land use system which requires the two components to be complementary and mutually supportive.
Further to the above, some form of regulation of the modes in the system is required for efficient public transport. In regard to regulation, the policy of the ETA is:-

**No.9**  To regulate all public transport services on a phased basis.

**No.10**  To support the devolution of transport functions for all modes of public transport to the Transport Authority, including rail and bus contracts on a phased basis.

**No.11**  To influence the roll-out of the Taxi Re-cap Programme in eThekwini Municipality once the programme has been finalised by NDOT.

Rationalisation and integration of eThekwini’s public transport system requires service changes which will necessitate termination of some services, re-positioning of others and in some instances introduction of new services.

Required changes may in part be effected through natural attrition. Where existing operators are affected, they may be accommodated in different ways including:-

- Re-positioning in the system using the same mode
- Re-positioning in the system using a different mode

The issue of compensation still needs to be resolved at a national and provincial level.

Where new licences are being issued there is a need to ensure existing operators in over-traded areas are given preferential consideration. In this regard ETA policy is the following:-

**No. 12**  Preferential consideration will be given to existing operators in over-traded areas or operators adversely impacted by planned service alterations, when allocating new licences for new services introduced either through service changes resulting from restructuring or service requirements for a new development.
Duplication of services, particularly subsidised services, leads to inefficiencies and unnecessary subsidy expenditure. The following is the ETA’s policy in this regard:

**No.13** To remove duplicate, subsidised services in direct competition. No new license applications will be approved where duplication exists except for the selected, preferred mode mix.

**No.14** To allow for duplication where differentiated services are being offered.

As regards defining the role of each mode in the public transport system, the ETA’s policy is:

**No.15** To position the modes within an integrated system on the basis of functionality and on the basis of the most cost-effective mode for corridor capacity requirements, using the following indicative guidelines:

- **rail:** greater than 20 000 one way passengers per day
- **bus:** 500-30 000 one way passengers per day (35 seater and standard buses)
- **taxi:** should not be used for major corridors or long distance line-haul routes but rather for short distance routes and/or feeder type services

**No.16** To facilitate public transport operator empowerment enabling operators to reposition in the industry and participate in tendered contracts.

In terms of economic efficiency, the public transport system must operate with economic load factors, providing a sustainable system with an acceptable level of service for different periods of the day and days of the week.
In this regard the ETA’s policy is:-

No.17 To reduce system costs and subsidy while providing an acceptable level of service to all sectors of the community.

No.18 To recognise the need for subsidy but to change the basis for subsidy from operator and system-deficit subsidy to targeted user-side subsidy which does not support and entrench long distance trips but addresses basic social needs of various groups in selected locations.

It is acknowledged that in the longer term subsidies need to be on a more equitable basis and available for all modes.

Note: Any changes to the current subsidy system would need to be phased in with full consultation to minimise negative impacts during the process.

In respect of integration and co-ordination the ETA’s policy is:-

No.19 To promote integration and co-ordination between all modes on a system-wide basis to achieve:-

- economies of scale
- reduced costs
- increased load factors

Some of the strategies to achieve this would be complimentary systems of through ticketing and effective user information systems to ensure user convenience is not compromised.
Regarding integration of land-use and transportation and promoting land use in support of efficient public transport, the ETA strongly supports the IDP delineation of an urban edge and urban core. This includes related programmes for densification in selected areas, in particular along corridors and at transport nodes in the High Priority Public Transport Network (HPPTN) – See below.

In regard to the above, the ETA’s policy is:-

**No. 20**  
To promote infilling and densification along public transport corridors and major public transport routes within acceptable environmental limits.

**No. 21**  
To direct employment opportunities, mixed land use and high-density residential development into high-utilisation public transport corridors, and nodes.
No.22 To discourage urban sprawl where public transport services are inadequate, including careful evaluation of any major trip-generating development outside the urban edge.

**Related Project:**

*Generally low income housing projects are located in areas where land prices are low but travel costs are relatively high due to travel distance. A pilot project is needed for the development of a low income housing project to be located on a site convenient to major activity and employment centres, with a view to subsidising the high cost of land which will be offset against the lower cost of transport and reduced need for transport subsidies, if any.*

No.23 To promote Durban CBD and the South Durban Basin as two dominant nodes of transport in the strategic North-South Corridor.

No.24 To encourage re-development around stations and major mode interchanges in the form of major trip generating land use and informal and emerging economic activities.

No.25 To steer public investment for schools, hospitals, clinics, police stations and various essential social services towards development nodes along significant transport corridors.

### 3.3 Proposed Policy for Sustainable Public Transport

The goal of sustainability is also multi-facetted and the public transport system needs to be:-

- financially sustainable
- technically sustainable
- socially sustainable
- environmentally sustainable
- sustainable in terms of access to adequate skills resources
- maintainable within the above considerations
sustainable in terms of complimentary and self-reinforcing support between the public transport system and land use which assists in creating a stable investment environment

Policy 17 under Public Transport Efficiency applies equally to the goal of sustainability. Additional policy in respect of financial and economic sustainability is:-

No.26 To identify and promote private-public partnerships in matters related to the provision, operation, maintenance and monitoring of public transport systems, service and related facilities.

The limitations of current funding restrict the Transport Authority's ability to effectively carry out their mandate. Further, the limitations of current legislation restrict their ability to develop adequate dedicated funding. The following policy however establishes a framework for addressing these issues through the investigations and projects set out below.

No.27 To apply user-pays principles where appropriate.

No.28 To support the most efficient mechanisms for raising funds.

Related Project:-

In order to give effect to the above policies several projects are required:-

- to achieve dedicated funding at the local level
- to invoke where possible current provincial legislation to raise additional dedicated transport funding
- to position the ETA to raise its own funding and reduce dependence on other spheres of government whilst recognising that national and provincial departments continue to have a level of responsibility for funding of public transport.

The following policy applies in respect of expenditure on capital works and maintenance of the public transport system:-

No.29 To ensure capital works expenditure programmes do not compromise maintenance standards, by identifying and programming cycles of fleet and system recapitalisation and maintenance.
The policies for sustainable public transport together with the creation of sustainable land use, are fundamental to establishing a stable investment environment which further reinforces sustainable public transport.

Access to adequate skills resources for the planning and execution of the ETA’s programme is an essential element of sustainability. In this regard the ETA’s policy is:-

No.31 To support the broader IDP initiatives in capacity building and training, ensuring the requirements of transport are adequately met.

Social sustainability is supported by the following policy:-

No.32 To ensure the user cost for services provided is affordable, within defined limits, for all sectors of the Community. In this regard, the intention is for the relevant authority to only approve applications for justifiable fare increases for any mode after due consultation.

No.33 To involve the community through user forums in considering various aspects of service provision.

Environmental sustainability has a number of aspects relevant to the ETA’s public transport policy; these being:-

- the negative impact of transport on the physical environment which on a daily basis affects quality of life
- the longer term impact on atmospheric pollution
- the longer term impact on energy conservation

Increasingly, emphasis is being placed on quality of life which is a fundamental consideration in the IDP mission statement and a major consideration in international best practice.

The physical environment we live in is greatly influenced by the transport system we provide. This environment can be greatly enhanced by the effective promotion and development of various forms of public transport.
The development of public transport systems in preference to private transport has the major advantage of reducing congestion and atmospheric pollution.

In subscribing to energy conservation principles and programmes the benefits of reduced environmental degradation along with the reduced cost of energy supply should become evident in the short term, with major long term benefits.

Consideration of these aspects of environmental sustainability suggest actions to reduce the need for and use of private transport thereby improving the urban environment through reduced congestion and air pollution.

Within the above context the ETA’s policy is:-

**No.34**

To promote public transport over private transport through various measures including implementation of high occupancy vehicle (HOV) facilities. (Refer also No. 2)

**No.35**

To investigate phasing of appropriate car restraint measures.

**Related Project:-**

*Transport Demand Management (TDM) is an effective strategy in promoting public transport over private transport. An investigation will be carried out to assess the location and type of priority strategies which can be applied to achieve this objective. This investigation will also consider the implications of various management and control strategies for access and use of private vehicles.*
No.36 To promote non-motorised transport (NMT) including walking and cycling.

**Related Project:**
A project has been initiated to develop a ‘Cycling Plan’ as one means of non-motorised transport. This project will address planning guidelines as well as policy which will be an expansion of policy no. 34.

No.37 To encourage the use of environmentally friendly vehicles and energy.

No.38 To introduce energy efficient measures for transport operations and infrastructure.

### 3.4 Proposed Policy for Safety & Security in Public Transport

For public transport to have an improved public image and to become an attractive alternative to private transport it is necessary to address a wide range of issues around public transport security and safety. These issues are key problem areas identified by existing public transport users.

In respect of Safety, the ETA’s policy will provide the framework for addressing safety in all aspects of the public transport system and operations which will also consider issues such as:-

- the integration of policy with appropriate Education, Engineering and Enforcement programmes as part of the ETA’s Safety Plan
- standards of policing in rural and urban locations
- enforcement of the operator/driver code of conduct and standards of service as per the Quality Service Charter

The introduction and enforcement of the Quality Service Charter (Policy No.7) will have a major impact on delivery of safe public transport. Further policy which will compliment the goal of safety is:-

No.39 To promote passenger safety in respect of PT operations at ranks, terminals and on board PT vehicles.
As regards matters of Security, the ETA’s policy is:-

**No.40** To ensure passenger security at ranks, terminal facilities and on board PT vehicles.

**Related Project:**

A comprehensive investigation is required to address matters of security for public transport users.

The project should consider amongst other issues:

- requirements for a data base on crime occurrence at facilities and on board PT vehicles
- levels and type of protection services in rural and urban communities
- use of appropriate technology
- use of security personnel (private and/or public service)
- requirements for a security audit of PT infrastructure design projects in terms of CSIR developed criteria

---

### 3.5 Black Empowerment in Public Transport

A major goal in the provision and operation of eThekwini’s public transport and related services is the achievement of Black Empowerment.

The ETA’s policy approach on Black Empowerment is:-

**No.41** To support the City’s goal of equity which will include:-

- creating opportunity for SMME’s
- open tendering on any contracted PT routes
- structuring contracts and requirements for contractors to include PDI operator sub-contracts
- providing rules for contract adjudication in respect of PDI submissions
➢ empowering existing and potential entrepreneurs through training

➢ providing support in the process of raising finance within funding and legal boundaries (eg. guarantees for financing of vehicles)

➢ creating commercial investment opportunities

➢ creating infrastructure management opportunities/contracts (eg. cleaning, security, rank management)
A comprehensive CPTR has been prepared for eThekwini Municipality for
the three hour am peak period (05h00-08h00) and where demand
warranted the three hour pm peak period (15h30-18h30).

The CPTR data base of individual public transport routes with one or both
ends in the eThekwini Municipal area provided the information needed to
prepare the tabulations specified by the National Department of Transport.
Further, this same data set provided the information used by the ETA in
preparing the OLS for the Municipal area.

This section of the ITP is supported by the full CPTR report and schedules
which are available from the ETA. The focus in the ITP is on overall
summaries and broad strategies, the details being available in the support
documentation.

### 4.1 Extent of Survey

The survey covered some 2 300km² divided into eight areas as shown in
Figure 4.1. Table 4.1 shows the total number of bus and taxi terminals by
area that were included in the three hour am peak period survey from
05h00 to 08h00. Table 4.2 shows the number of routes, including those
which were not operating on the particular survey days.

#### Table 4.1: Bus/Taxi Terminal Points

<table>
<thead>
<tr>
<th>Area</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>35</td>
</tr>
<tr>
<td>B</td>
<td>25</td>
</tr>
<tr>
<td>C</td>
<td>81</td>
</tr>
<tr>
<td>D</td>
<td>96</td>
</tr>
<tr>
<td>E</td>
<td>70</td>
</tr>
<tr>
<td>F</td>
<td>118</td>
</tr>
<tr>
<td>G</td>
<td>130</td>
</tr>
<tr>
<td>H</td>
<td>77</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>632</strong></td>
</tr>
</tbody>
</table>
Table 4.2:  Bus and Taxi Route Summary

<table>
<thead>
<tr>
<th>Area</th>
<th>Bus</th>
<th>Taxi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>233</td>
<td>244</td>
<td>477</td>
</tr>
<tr>
<td>B</td>
<td>123</td>
<td>70</td>
<td>193</td>
</tr>
<tr>
<td>C</td>
<td>67</td>
<td>236</td>
<td>303</td>
</tr>
<tr>
<td>D</td>
<td>104</td>
<td>259</td>
<td>363</td>
</tr>
<tr>
<td>E</td>
<td>308</td>
<td>363</td>
<td>671</td>
</tr>
<tr>
<td>F</td>
<td>272</td>
<td>115</td>
<td>387</td>
</tr>
<tr>
<td>G</td>
<td>281</td>
<td>284</td>
<td>565</td>
</tr>
<tr>
<td>H</td>
<td>241</td>
<td>159</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>1629</td>
<td>1730</td>
<td>3359</td>
</tr>
</tbody>
</table>

In addition to the above, 8 basic rail routes radiating from Durban were also surveyed. In total there were 55 unique combinations of start and end stations and scheduled en route station/halt stops.
Figure 5.1: ETHEKWINI CPTR SURVEY AREAS

Figure 4.1: eThekwini CPTR - Survey Areas
4.2 Content of Survey

All public transport routes are geographically defined in detail from point of origin to destination. These are logged on the Municipalities system which interfaces with their Public Transport Management System (PTMIS) developed to capture data and report on various aspects of current supply, utilisation and performance of the services forming part of the public transport system.

On the supply side information has been captured by mode and by route on:-

- route location
- route length
- fare structures and timetables
- departure times from point of origin
- capacity

At terminals, ranks and selected holding areas information was collected and captured on:-

- layout and type of construction
- capacity
- amenities

On the demand side, information by mode and route was collected on:-

- passenger loadings
- passenger queue times
- maximum vehicle accumulation

Using PTMIS this data was analysed to produce the tabulations required by the NDOT as part of the ITP. These are available as a separate document forming part of the full CPTR.

A brief description of the rail, bus and minibus taxi components of the public transport system and a selection of key results are described in the following section.
4.3 Public Transport System - Key Survey Results

4.3.1 Rail System Component

The commuter rail component of the eThekwini public transport system comprises a north-south line following the coast from beyond the limits of the Municipal area to both the north and south with three spur lines serving the major residential areas of Umlazi, Chatsworth, and KwaMashu.

The mainline into the hinterland also carries commuters in the east-west direction within the Municipal area and a circuitous line connects Pinetown CBD to Rossburgh Station on the north-south line.

There is also a spur line along the south side of the harbour to the lower Bluff which is largely undeveloped.

In total the rail system component comprises 55 rail routes over 2,543 kilometres of track. At the time of the survey the passenger carrying capacity of the system during the AM and PM 6 hour period was 504,000 passengers. Total passengers carried during this same period was 135,500.

During peak hours load factors ranged from a low of 15% on one of the minor routes to 59% on one of the major routes.

4.3.2 Bus System Component

The bus service provided by some 200 operators, in 13 associations covered approximately 1,600 uni-directional routes in a mix of subsidised and unsubsidised services. In total a fleet of some 1,500 buses provided service on these routes and approximately two thirds of the route system was covered by subsidised service contracts.

The average route length was approximately 26 kilometres and average one way fare R8.20. The longest route was 92 kilometres and the highest one way fare R47.50.

In the AM plus PM peak 6 hours the system provided a service capacity of 327,000 passengers. Some 227,000 passengers representing approximately 70% capacity utilisation were carried during these hours.
4.3.3 Minibus Taxi System Component

This system component comprises some 1 730 taxi routes serviced by 120 taxi associations using a fleet of 1 150 vehicles.

The average route length is approximately 20 kilometres with the longest route in the AM peak being 62 kilometres and in the PM peak 58 kilometres. The average wait time during the peak, at the start of a route was 10 minutes.

In total the AM plus PM peak service of 6 hours provided capacity for some 367 000 passengers. During this same period approximately 320 000 passengers were carried representing 87% of the available capacity.

The PM peak utilisation of 97% of available capacity was considerably higher than the AM peak of 85%.

4.3.4 Busiest Public Transport Activity Node

The following destinations were the busiest public transport nodes in terms of the number of passengers using these areas as a destination in both the AM and PM peak hour:-

- Durban CBD - 112 000 passengers (AM & PM peak hour)
- Pinetown CBD - 27 000 passengers (AM & PM peak hour)
- Isipingo CBD - 21 000 passengers (AM & PM peak hour)

The ten busiest surveyed passenger facilities (highest number of passengers per hour) were:-

<table>
<thead>
<tr>
<th>Rank name</th>
<th>Passengers per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoria Bus Rank (Durban CBD)</td>
<td>7035</td>
</tr>
<tr>
<td>Umlazi Station - Umlazi J</td>
<td>5961</td>
</tr>
<tr>
<td>Ntuzuma E - Dalmeny Road</td>
<td>5472</td>
</tr>
<tr>
<td>Pine Street Rank 1 (Durban CBD)</td>
<td>5104</td>
</tr>
<tr>
<td>Westmead - Malcolm Road</td>
<td>4900</td>
</tr>
<tr>
<td>Soldiers Bus Rank (Durban CBD)</td>
<td>4336</td>
</tr>
<tr>
<td>Ntuzuma F</td>
<td>3894</td>
</tr>
<tr>
<td>Hill Street Bus Rank - Hill Street, Pinetown</td>
<td>3819</td>
</tr>
<tr>
<td>Isipingo Bus Rank</td>
<td>3778</td>
</tr>
<tr>
<td>Canongate (Durban CBD)</td>
<td>3713</td>
</tr>
</tbody>
</table>
5 METERED TAXI

5.1 Introduction

Apart from the CPTR study which covered the major commuter transport modes of minibus taxi, bus and rail, an investigation was also conducted into metered taxi services. The full report is available in the annexures on CD.

Although in South Africa metered taxis are not a commonly used form of transport by the local population for a variety of reasons the industry in eThekwini is nonetheless well established and performs an essential role in the transportation of both residents within and visitors to eThekwini. The function of metered taxis within the municipal transport system, however, is not clearly defined and the institutional structure of the industry on all levels is fragmented.

This section of the ITP looks at the current status of the metered taxi industry. In addition, the framework for developing policy and strategy are considered, which will assist in positioning the industry to perform effectively in serving future demand, in particular extraordinary demand from events such as the 2010 Soccer World Cup.

5.2 Size of eThekwini Metered Taxi Industry

There are approximately 150 metered taxi operators in eThekwini that operate some 400 metered taxis. The size of the operations varies considerably from the largest with a fleet of 45 taxis to the single vehicle owner-driver. The South African Metered Taxi Association (SAMTA) has approximately 80 operators as members, the Thekwini Africa Metered Taxi Association (TAMTA) has approximately 70 operators as members and the Durban Metropolitan Taxi Association (DMTA) has approximately 70 operators as members. Some operators are members of more than one of the three associations.

It is difficult to obtain the metered taxi fleet size in eThekwini as the available data on vehicle accreditation permits is outdated and not reliable and the available data on rank permits is listed by permit and not by vehicle. Taking into consideration the fact that one vehicle can operate on two or more rank permits, it is estimated that the total legal metered taxi fleet in eThekwini is approximately 400 vehicles.
There are an estimated 60 permanent taxi drivers who do not have permits but are known to operate in the Inner City area. There are also moonlighters that operate mainly at night and target the low end of the market. No surveys of these taxis without permits or the illegal taxis have ever been undertaken and therefore the exact numbers are difficult to estimate.

5.3 Metered Taxi Routes and Operations

The metered taxi industry provides a 24 hour service throughout the week in eThekwini. The companies with larger vehicle fleets use their vehicles on a 24-hour basis with drivers working 12-hour shifts. The smaller operators, who have one dedicated driver per vehicle, and owner-drivers also work a 12-hour day but their time is flexible to the market they serve and also changes according to seasonal demands. The off-peak period across all market sectors including seasonal demands is from 02:00 to 06:00 in the morning.

The most popular metered taxi return routes in eThekwini are listed as follows:

<table>
<thead>
<tr>
<th>Route No.</th>
<th>Origin</th>
<th>Destination</th>
<th>Distance</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CBD</td>
<td>Durban International Airport</td>
<td>20km</td>
<td>08h00 – 19h00</td>
</tr>
<tr>
<td>2</td>
<td>CBD</td>
<td>Pavilion Shopping Centre</td>
<td>12km</td>
<td>08h00 – 19h00</td>
</tr>
<tr>
<td>3</td>
<td>CBD</td>
<td>Gateway Shopping Centre</td>
<td>14km</td>
<td>08h00 – 19h00</td>
</tr>
<tr>
<td>4</td>
<td>CBD</td>
<td>Berea / Overport</td>
<td>7km</td>
<td>08h00 – 22h00</td>
</tr>
<tr>
<td>5</td>
<td>CBD</td>
<td>Sun Coast Casino</td>
<td>5km</td>
<td>08h00 – 00h00</td>
</tr>
<tr>
<td>6</td>
<td>CBD</td>
<td>Internal within CBD</td>
<td>5km</td>
<td>08h00 – 02h00</td>
</tr>
<tr>
<td>7</td>
<td>CBD</td>
<td>Residential Suburbs</td>
<td>ave 25km</td>
<td>22h00 – 04h00</td>
</tr>
</tbody>
</table>

Route 1: business and tourist markets
Route 2: private and tourist markets
Route 3: private and tourist markets
Route 4: private and tourist markets
Route 5: private and tourist markets
Route 6: private and tourist markets
Route 7: private and shift workers during weekdays, leisure over weekends

The average flag fall fee is R5.00 whilst the average fee per kilometre is R7.00. In most cases fees are negotiable to be discounted or as a flat fee.
5.4 Ranks in eThekwini

There are a total of 50 designated formal metered taxi ranks in the Inner City area containing about 150 bays. Approximately 5 of these ranks, mostly located outside former night clubs are no longer used due to the closure of the clubs. There is also a major rank at Durban International Airport that contains 8 bays. Most of the Inner City ranks are on-street parking areas that have been designated as metered taxi ranks. None of the metered taxi ranks have shelters or ablution facilities.

5.5 Policies and Strategies

Although these are no formal national policies or strategies for the metered taxi industry various papers and reports have been prepared by the Metered Taxi Working Group, a sub-committee of the National Taxi Task Team, which has been active since 1996.

These include:-

- “The Metered Taxi: Problems and Solutions Preparation for Provincial Workshops - June 1996"
- “Supplementary Final Recommendations relating to Metered Taxis - May 1997”
- “Report and Recommendations on 4+1 Vehicles - May 1997”

In addition to this, the National Department of Transport produced a “Position Paper on the Regulation and Democratisation of the Metered Taxi Industry” in October 2002. This paper made recommendations on the following:-

- National registration and democratisation of the metered taxi industry
- Clear definition of the services rendered by the metered taxi industry
- Law enforcement
- Legislative amendments
- Arrangements for a national summit or indaba of all role players to initiate the representation process.

To date, apart from legislative and regulation amendment initiatives at both the national and provincial level none of the institutional or operational recommendations have been formally implemented although a few of the issues have been addressed in eThekwini and possibly provinces outside of KwaZulu-Natal.
The KwaZulu-Natal Department of Transport at present does not have any policies or strategies for the metered taxi industry; however, a Provincial Bill has been approved by the KwaZulu-Natal cabinet, which gives the Minister of Transport the power to restructure all modes of land transport including metered taxis. This Bill will be tabled before Parliament by the Minister following the public consultation phase. The KwaZulu-Natal Department of Transport is also in the process of formulating Provincial regulations that will govern the metered taxi industry.

From the above, the current initiative by KZN-DOT to formulate a legal framework to accommodate new policies and strategies for the metered taxi industry and the National Department of Transport initiative to arrange a summit or indaba for all role players, will provide important background for the preparation of a policy document for metered taxi operations in eThekwini Municipality.
6.1 Introduction

The extent and location of growth in population and employment opportunities, together with other trip attracting opportunities, impacts on the transport system requirements for the metropolitan area.

The transportation system, and in particular the public transport system, can support or discourage the land use development pattern based on Council’s development priorities.

In recent years there has been a move of commercial development from the Durban central area to the Berea and to the Umhlanga area. Further, there has been a deterioration and move away from the South Durban Basin to the Pinetown/Westmead industrial area and the Effingham, Avoca industrial areas north of the Umgeni River. The ‘Trend’ development scenario for the future shows this pattern continuing.

This trend erodes the strength of development along the historic, intensely developed North-South Coastal corridor from Isipingo in the south to the northern residential areas of KwaMashu, Ntuzuma, Inanda and Phoenix in the north. It also has the potential to dilute the effectiveness of an efficient public transport system serving development along this corridor.

This section of the Public Transport Plan looks at key aspects of the long term trend growth and related travel pattern.

6.2 Growth and Travel Projections

6.2.1 Population and Employment

Table 6.1 shows the estimated population and employment growth rate over approximately twenty years.

Table 6.1: Population and Employment (1000’s)
(Years 2001 and 2020)

<table>
<thead>
<tr>
<th></th>
<th>Year 2001</th>
<th>Year 2020</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3 063</td>
<td>3 047</td>
<td>0%</td>
</tr>
<tr>
<td>Employment</td>
<td>762</td>
<td>1 015</td>
<td>+33%</td>
</tr>
</tbody>
</table>

Source: Long Term Road Infrastructure Plan for eThekwini - 2004
Whilst there is no anticipated net growth in population over the next 20 years there is an estimated growth of over 1.5% per annum compound growth in employment. Based on land use modelling, it is estimated that some 250 000 jobs, representing a net increase of 33% over the next 20 years will be located throughout the metropolitan area in the categories of General Commercial, General Industrial and Light Industrial.

6.2.2 Travel Projections and Modal Split

Related to growth in employment there is an estimated overall growth in peak period travel in the years 2005 to 2020 of some 22% (154 000 person trips). However, as shown in the following table, based on the projected trend during this period for reduced use of public transport and increased use of private transport, all growth in trips will be by car with an estimated decrease of 3% in public transport trips.

<table>
<thead>
<tr>
<th></th>
<th>Year 2005</th>
<th>Trend Year 2020</th>
<th>Net Growth 2005-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Person Trips</td>
<td>699</td>
<td>853</td>
<td>+22%</td>
</tr>
<tr>
<td>Trips by Car</td>
<td>333</td>
<td>498</td>
<td>+50%</td>
</tr>
<tr>
<td>Trips by Public Transport</td>
<td>366</td>
<td>355</td>
<td>-3%</td>
</tr>
<tr>
<td>Modal Split (PT:Car)</td>
<td>52:48</td>
<td>42:58</td>
<td></td>
</tr>
</tbody>
</table>

This disturbing trend of decline in use of public transport is not sustainable. It is based on the historic and on-going decline in public transport service accompanied by a rapid growth in car ownership (See Figure 6.1).

Figure 6.1: Car Ownership Levels per 1000 Population
This unacceptable pattern of decline in public transport usage is being addressed through the Public Transport Plan. The Plan sets out the strategy for restructuring the public transport system accompanied by various Transport Demand Management measures (TDM) to increase the relative attractiveness of public transport over the use of private vehicles. (Refer Sections 7 and 8).

### 6.3 Impact of the Trend Land Use on the Travel Pattern

Historically the bulk of formal employment in the metropolitan area has been located along the coastal corridor from Isipingo in the south to the northern end of North Coast Road in the north, where it crosses the N2 freeway. The exception is the major employment node, Pinetown-New Germany approximately 20 kilometres west of the CBD. This hub of industrial/commercial activity currently accounts for some 65 000 jobs, 8% of the metropolitan total.

At each end of the coastal corridor there is a major concentration of low to middle income residential development. These communities, Umlazi in the south and KwaMashu, Ntuzuma, Inanda and Phoenix in the north have a high dependency on public transport. They are the largest contributors to peak travel along this heavy demand corridor where most of their work destinations are located.

Figure 6.2 shows employment trends and projections from 1996 to 2020. These estimates used in the transportation modelling show a significant decline in employment in the established commercial and industrial areas along the coastal corridor, over the past 10 years. In particular a move of commercial employment from the Durban Central area to the north and industry from the South Durban Basin to the north and west are cause for concern.
Figure 6.2: Employment Projections eThekwini Metropolitan Area 1996 to 2020

Source: Long Term Infrastructure Plan - January 2004
Estimates of future employment indicate that most of this loss in employment will be recovered over the next 15 years assuming active, successful interventions by eThekwini Municipality (without any net growth above 1996 levels of employment.)

To the west, some considerable employment growth is shown in the Pinetown/New Germany, Shongweni area, Hillcrest and surrounds and to a lesser degree at Botha’s Hill and Hammersdale. Relative to growth in these areas major employment growth is predicted to the north at La Mercy, Umhlanga, Effingham and Mount Edgecombe.

Although considerable growth in population has occurred over the past decade this will be reversed by a decline over the next 10-15 years largely due to the impact of aids related deaths.

In the west, the net effect of these changes will be a decreased need for residents in the west to travel to employment areas along the coastal corridor. As shown in Table 6.3 the average trip length from residential areas in the west will be marginally shorter.

Table 6.3  Change in Average Public Transport Trip Length
AM Peak Period (1996 to 2020)

<table>
<thead>
<tr>
<th>Area</th>
<th>Trip Distance (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1996</td>
</tr>
<tr>
<td>West</td>
<td>23.5</td>
</tr>
<tr>
<td>North</td>
<td>23.2</td>
</tr>
<tr>
<td>South</td>
<td>21.7</td>
</tr>
<tr>
<td>Total Municipal Area</td>
<td>20.9</td>
</tr>
</tbody>
</table>

Source: Long Term Road Infrastructure Plan for eThekwini - 2004

Trips originating in the northern residential areas will also be marginally shorter as a result of the considerable growth in employment north of the Umgeni River. However, trips from the major residential areas in the south will be considerably longer.

This change in trip pattern for trips along the coastal corridor is highlighted by figures shown in Table 6.4 which shows changes in am peak hour public transport trips northbound and southbound between 1996 and 2020, based on the trend land use development.
Table 6.4  Public Transport Trips along the North-South Coastal Corridor: AM Peak Hour (1996 to 2020)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Umlaas River (N-S)</td>
<td>9 799</td>
<td>7 853</td>
<td>-20%</td>
</tr>
<tr>
<td>Umlaas River (S-N)</td>
<td>31 447</td>
<td>36 154</td>
<td>+15%</td>
</tr>
<tr>
<td>Umbilo River (Part of) (N-S)</td>
<td>18 131</td>
<td>17 398</td>
<td>-4%</td>
</tr>
<tr>
<td>Umbilo River (Part of) (S-N)</td>
<td>33 517</td>
<td>42 085</td>
<td>+26%</td>
</tr>
<tr>
<td>Umgeni River (N-S)</td>
<td>41 678</td>
<td>44 353</td>
<td>+6%</td>
</tr>
<tr>
<td>Umgeni River (S-N)</td>
<td>6 461</td>
<td>18 305</td>
<td>+180%</td>
</tr>
<tr>
<td>Umhlanga River (Part of) (N-S)</td>
<td>9 044</td>
<td>13 859</td>
<td>+53%</td>
</tr>
<tr>
<td>Umhlanga River (Part of) (S-N)</td>
<td>2 620</td>
<td>5 706</td>
<td>+118%</td>
</tr>
</tbody>
</table>

The following points summarise the impact on the north-south coastal corridor:-

- Before the development of new employment centres north of the Umgeni River most trips crossing the Umlaas and the Umbilo screenlines would have been destined for employment in the South Durban Basin and the CBD.

- The growth in northbound trips across the Umgeni screenline exceeds growth across the Umlaas and Umbilo screenlines, indicating a reduction in trips terminating in the South Durban Basin and the CBD and a dramatic increase in trips destined for employment areas north of the Umgeni River.

6.4 IDP Response to Development Trend

The IDP recognises the negative impact of the current trend for existing employment generators to move from the CBD and the South Durban Basin. In responding, the City has included in their IDP an eight point plan:

- "balancing new development with renewal and maintenance:-
- rehabilitating and maximising use of existing facilities and infrastructure
- carefully considering and targeting the extension of bulk infrastructure.”

6.6 eThekwini’s Public Transport Plan
Long Term Trends
In respect of the South Durban Basin and the CBD the City has identified the following action plans:-

- to significantly upgrade management and infrastructure in core manufacturing locations, in particular the South Durban Basin.
- to regenerate core business zones (especially Durban Inner City and South Durban areas, ....)

In establishing the context for a Spatial Development Framework (SDF) which integrates the transport systems, as a key component of the framework, the IDP states the following:

The eThekwini Metropolitan Area is characterised by a spatial legacy of imbalances and fragmentation, manifesting in a racially divided city form that has high social and economic costs, especially for historically disadvantaged communities.

It is in this regard that the SDF must ensure that public and private sector money and activities are located in areas that can best:

- Promote economic generation potential
- Maximise opportunities for the poor
- Promote accessibility
- Minimise the cost of physical expansion
- Ensure that people are well located
- Promote a sustainable supply of environmental services

These same principles are best exhibited in the north-south public transport corridor.

Further development of the SDF is required in terms of integrating the public transport systems into the framework. This work will need to consider the long term impact of new development north of the Umgeni River and an adequate response in terms of transport and land use.

Within the context of this SDF, local area development plans integrated with local area public transport plans can then be developed.
7.1 Background

Transport Demand Management (TDM) may be described as a system of actions and interventions used to alleviate traffic congestion-related problems through improved management of vehicle trip demand.

In the South African context this translates into a variety of ‘carrot’ and ‘stick’ interventions focused broadly on increasing the use of public transport in the peak and decreasing the use of private transport.

Clearly the type, extent and severity of actions taken at any point in time needs to be considered against the severity of the problems being addressed.

7.2 Growth Trends and Target Modal Split

7.2.1 Growth Trend

Current estimates place the trend growth in peak period person trips between 2005 and 2020 at 22%. This translates into a 50% increase in trips by car and a 3% decrease in trips by public transport.

Considering current levels of congestion, accommodating a 50% increase in private motor vehicles on the road system is unacceptable and unaffordable in both financial and environmental terms.

7.2.2 Implications of ‘Do Nothing’

In the event no actions are taken to address the trend of increased use of private transport and decreased use of public transport a number of service problems will result; these being:-

- a progressive deterioration in all forms of transport services throughout the city, including public transport, freight transport and private transport.

- Road congestion affecting all forms of transport.
Road based public transport will become increasingly costly and inefficient as sprawling land use patterns continue to dilute the effectiveness of public transport.

The demand for road capacity will exceed affordability of providing additional road space.

A significant reduction in accessibility and mobility for the public

Reduced accessibility for freight movement with the concomitant effect of increased cost for commercial and industrial activities and reduced attractiveness for commercial/industrial development in eThekwini.

Overall these and other consequences of a 'do nothing' approach to the current trend will have significant negative implications on key components of the IDP vision, these being:-

- Providing a high quality of life
- Meeting peoples needs
- Growing the economy

7.2.3 Target Modal Split

The extent of the peak hour within the peak period is affected by increasing levels of congestion which cause a spreading of the peak traffic demand. This is a natural phenomenon which in the eThekwini area is expected to result in approximately half of the peak two hour traffic occurring in the peak hour by year 2020. By implication this also means that the heaviest traffic demand will also extend well beyond a one hour period.

Any further reduction in peak travel can only take place with a change in modal split encouraged by the use of TDM measures. The White Paper on National Transport Policy published in 1996 advocated a modal split to public transport of 80:20 (public: private). Based on screenline surveys, the estimated current modal split in the municipal area overall is 52:48 in the two hour peak period.
This represents the aggregation of lower income areas such as Umlazi with a modal split as high as 94:6 through to high income areas with a very low modal split to public transport.

Recognising the current trend of declining use of public transport a more realistic target of reversing the trend and achieving a positive growth in public transport has been set. Table 7.1 highlights the implications of reversing the trend modal split in year 2020 of 42:58 (public: private) to 55:45, an improvement in the current modal split of 52:48.

Table 7.1 Trend versus Target Modal Split (AM Peak 2 Hours - Years 2005 and 2020) (Person Trips - 1000’s)

<table>
<thead>
<tr>
<th></th>
<th>Year 2005</th>
<th>Year 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trips by Car:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Trend</td>
<td>333</td>
<td>498</td>
</tr>
<tr>
<td>- Target</td>
<td>384</td>
<td></td>
</tr>
<tr>
<td>- Difference</td>
<td></td>
<td>-114</td>
</tr>
<tr>
<td>Trips by Public Transport (PT):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Trend</td>
<td>366</td>
<td>355</td>
</tr>
<tr>
<td>- Target</td>
<td>469</td>
<td></td>
</tr>
<tr>
<td>- Difference</td>
<td></td>
<td>+114</td>
</tr>
<tr>
<td>Modal Split (PT:Car):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Trend</td>
<td>52:48</td>
<td>42:58</td>
</tr>
<tr>
<td>- Target</td>
<td>55:45</td>
<td></td>
</tr>
</tbody>
</table>

Figure 7.1: Person Trips by Public Transport (1000’s) Peak Period (2 Hours) - Years 2005 to 2020 Trend vs Target
During the period 2005 to 2020 the ‘target’ modal split will result in estimated peak period growth in person trips by public transport of 103 000 as opposed to the ‘trend’ decrease of 11 000.

The significant growth of 28% in public transport demand will need to be taken up by the restructured public transport system which is described in Section 8.

As shown in Figure 7.2, the demand for private transport by car in the peak hour translates into a ‘target’ growth in cars of 31 000 as opposed to the ‘trend’ demand for an additional 100 000 cars.

7.3 Modal Split Monitoring

Modelled figures for total trips by mode throughout the municipal area are useful for establishing overall targets. However, for monitoring purposes measured modal split across cordons or screenlines is more effective. For this purpose the five kilometre screenline which intercepts the major roads in the municipal network is used.

Currently, in the peak two hour period, there are approximately 193 000 person trips inbound across the cordon and 87 000 outbound. The overall modal split is the same in both directions 54%:46% (public:private). The breakdown by mode however differs slightly as shown below:-
Table 7.2 AM Peak Period Modal Split - Year 2004
5 Kilometre Cordon (Inbound & Outbound)

<table>
<thead>
<tr>
<th>Mode</th>
<th>% Person Trips by Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inbound</td>
</tr>
<tr>
<td>Taxi</td>
<td>30%</td>
</tr>
<tr>
<td>Bus</td>
<td>18%</td>
</tr>
<tr>
<td>Rail</td>
<td>6%</td>
</tr>
<tr>
<td>Sub-Total Public Transport</td>
<td>54%</td>
</tr>
<tr>
<td>Private</td>
<td>46%</td>
</tr>
<tr>
<td>All Vehicles</td>
<td>100%</td>
</tr>
</tbody>
</table>

The five year change in modal split is shown below, however, as rail figures were not available for the cordon in 1999, rail passengers have been assumed as constant from year 1999 to 2004.

Table 7.3 AM Peak Period Person Trips/Modal Split
Comparison 1999 vs 2004
5 Kilometre Cordon Inbound

<table>
<thead>
<tr>
<th>Mode</th>
<th>Year 1999 (1000's)</th>
<th>Modal Split</th>
<th>Year 2004 (1000's)</th>
<th>Modal Split</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxi</td>
<td>56 (29%)</td>
<td></td>
<td>57 (30%)</td>
<td></td>
</tr>
<tr>
<td>Bus</td>
<td>45 (23%)</td>
<td></td>
<td>35 (18%)</td>
<td></td>
</tr>
<tr>
<td>Rail(1)</td>
<td>12 (6%)</td>
<td></td>
<td>12 (6%)</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>83 (42%)</td>
<td></td>
<td>89 (46%)</td>
<td></td>
</tr>
</tbody>
</table>

Note (1) Rail trips not available for Year 1999 therefore assumed the same as 2004

7.4 TDM Measures

Apart from TDM measures which are needed to reduce the demand for private transport there is a range of concomitant measures needed to retain current public transport ridership whilst attracting new riders from the private transport group. Certain measures are also needed to manage the extent and location of demand for freight transport movement. In many instances issues of system efficiency, effectiveness, safety, affordability and sustainability under-score the need for effective TDM measures. This section considers various types of interventions and measures, the objective of each and the applicability of each in the short, medium and long term. In the following tables the short term period is defined as 1-5 years, medium term 6-10 years and long term 11-20 years. Many of the measures will be introduced on a phased basis and often extend over more than one period. In each case the first period of introduction is shown in the table.
The measures are tabulated in four main categories, these being:-

1) **Private transport**, which includes congestion reduction and parking measures
2) **Public transport**, which also embraces the development of non-motorised transport
3) **Land-use development and management**
4) **Policy and institutional**, which relates to one or more of the other categories.

In many instances individual strategies could be allocated to more than one category however for simplicity they have been restricted to one only.

### 7.4.1 Private Transport Measures

Table 7.4 contains measures used to improve system performance, reduce need to travel particularly during peak periods and various restrictive measures which would result in a reduction in travel by private transport.

The restrictive interventions are directed towards active discouragement of the use of private cars. If such interventions are not to be unduly restrictive they *must* be accompanied by provision of attractive public transport alternatives as discussed in 7.4.2 Public Transport Measures.

### 7.4.2 Public Transport Measures

Table 7.5 contains a range of measures directed towards improving the public transport system and services in order to provide a more attractive service to current riders and to encourage existing private motorists to use public transport. Generally, attracting the private motorists onto public transport would also require a variety of disincentives directed at the motorist such as those identified under the private transport measures.

The public transport measures include physical infrastructure projects for public transport priority, fleet upgrades for all modes to acceptable standards, safety and security measures and the effective promotion of public transport across all income groups.

In recognition of the need for a holistic approach to public transport a range of measures focused on providing where practical, an adequate system for non-motorised transport (pedestrian and cycling) have also been integrated.
Selectively and effectively integrated with measures in the other categories, these public transport initiatives introduced at the appropriate time, have potential for a significant impact on the reduction of the trend growth in demand for private transport. Further, such initiatives begin to give effect to the overall transport policy of prioritising public transport over private transport.

7.4.3 Land Use Development and Management Measures

Land use plays a key role in the location and demand for various forms of transport. Table 7.6 identifies measures which in effect are land use planning and development guidelines encouraging and supporting efficient transport in a city, with the focus on public transport.

7.4.4 Policy and Institutional Measures

Table 7.7 identifies several measures which address the key issues of appropriate institutional arrangements, regulation of transport, pricing, cost recovery and preservation of valuable transport assets.
<table>
<thead>
<tr>
<th>TDM Measure</th>
<th>Description</th>
<th>Objectives</th>
<th>Implementation Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Traffic Control system</td>
<td>The use of computerised signal control systems to manage traffic flows</td>
<td>To optimise traffic flows through signal systems and minimize congestion and related pollution and cost inefficiencies</td>
<td>✓</td>
</tr>
<tr>
<td>Intelligent Transportation Systems</td>
<td>Use of information technologies to provide the driver with real time information and/or instructions to avoid problem locations etc</td>
<td>To improve system performance, reduce congestion and unnecessary travel</td>
<td>✓</td>
</tr>
<tr>
<td>Alternative work schedules and flextime</td>
<td>Compressed work week (CWW) and staggered shifts, starting/ending outside of peak periods and/or allowing employees to work flextime</td>
<td>To reduce demand for travel in peak periods and in particular the peak hour</td>
<td>✓</td>
</tr>
<tr>
<td>Telework (Telecommuting, distance learning, tele-shopping, etc)</td>
<td>Use of telecommunications as a substitute for physical travel</td>
<td>To reduce need for travel for work and business purposes both in and out of peak periods</td>
<td>✓</td>
</tr>
<tr>
<td>Ridesharing</td>
<td>Ways to support and encourage carpooling and vanpooling</td>
<td>To reduce private vehicles on the road system in peak periods</td>
<td>✓</td>
</tr>
<tr>
<td>Vehicle use restrictions</td>
<td>Regulatory strategies to limit private vehicle travel at a particular time and place</td>
<td>To limit use of private transport in selected areas of the city in particular during peak periods</td>
<td>✓</td>
</tr>
<tr>
<td>Limited road development</td>
<td>Allow traffic to increase and congestion to grow in selected areas</td>
<td>To encourage peak spreading, use of public transport and reduction in trend growth of public transport in selected areas</td>
<td>✓</td>
</tr>
<tr>
<td>Area access taxation</td>
<td>Drivers entering defined restricted areas of city pay an access tax</td>
<td>To limit private transport use in defined areas of city whilst raising funding for transport system, preferably public transport</td>
<td>✓</td>
</tr>
<tr>
<td>Road pricing</td>
<td>Congestion pricing, value pricing, road tolls and HOT lanes</td>
<td>To recover cost of road infrastructure from the users</td>
<td>✓</td>
</tr>
<tr>
<td>Distance-based pricing</td>
<td>Charge insurance, road use fees, emission charges and taxes based on a vehicle’s kilometres</td>
<td>To reduce use of private transport</td>
<td>✓</td>
</tr>
<tr>
<td>Fuel taxes</td>
<td>Increase fuel taxes</td>
<td>To fund roads and public transport and reduce demand for private transport</td>
<td>✓</td>
</tr>
<tr>
<td>Parking management</td>
<td>Methods for more efficient use of parking</td>
<td>To make best use of available facilities</td>
<td>✓</td>
</tr>
<tr>
<td>Parking cost, pricing and revenue planning</td>
<td>Parking facility cost recovery pricing and revenue generation planning</td>
<td>To prepare a comprehensive parking revenue programme, considering cost of providing facilities</td>
<td>✓</td>
</tr>
<tr>
<td>Parking taxation</td>
<td>Drivers wanting the right to park in defined restricted areas of city pay applicable tax for that area</td>
<td>To limit private transport demand for parking in defined areas of city whilst raising funding for transport system; preferably public transport</td>
<td>✓</td>
</tr>
<tr>
<td>Shared parking</td>
<td>Shared parking facilities among multiple users</td>
<td>To maximise utilization of facilities</td>
<td>✓</td>
</tr>
<tr>
<td>TDM Measure</td>
<td>Description</td>
<td>Objectives</td>
<td>Implementation Timing</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td>------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>HOV (High occupancy vehicle) priority</td>
<td>Priority measures focused on public transport vehicles</td>
<td>To reduce public transport (PT) travel times and give PT noticeable advantage over private transport in congested areas thereby encouraging use of public transport</td>
<td>√</td>
</tr>
<tr>
<td>Re-routing around congested areas</td>
<td>To identify points of congestion along PT routes and identify alternative routing where practical if priority facilities cannot be introduced</td>
<td>To reduce travel times without reducing accessibility</td>
<td>√</td>
</tr>
<tr>
<td>Optimised configuration of public transport ranks and holding areas</td>
<td>Rationalise location and use of ranks in congested areas of the city</td>
<td>To reduce congestion by reducing unnecessary loading/holding as well as movement of PT vehicles in congested areas</td>
<td>√</td>
</tr>
<tr>
<td>Provision for non-motorised transport</td>
<td>Plan and implement localized, safe and effective walking and cycling facilities integrated into other modes of public transport where justified by current and latent demand and where physically practical</td>
<td>To minimize the cost of transport for the urban poor where possible and provide flexibility in transport options</td>
<td>√</td>
</tr>
<tr>
<td>Non-motorised facility management</td>
<td>Practices for managing and maintaining non-motorised facilities such as walkways, sidewalks and cycle paths</td>
<td>To ensure facilities provided are well maintained and remain safe attractive options to the user</td>
<td>√</td>
</tr>
<tr>
<td>Upgrade of PT system</td>
<td>Ensure availability of the appropriate mode of public transport for an efficient, user attractive PT system</td>
<td>To provide a cost efficient, attractive PT system which will retain the support of current ridership and encourage new riders from the current private transport group</td>
<td>√</td>
</tr>
<tr>
<td>Upgrade of PT fleet</td>
<td>Investment in fleet to ensure all modes (rail, bus, taxi) operate with equipment to defined standards</td>
<td>To provide a safe, efficient and attractive public transport service</td>
<td>√</td>
</tr>
<tr>
<td>Park &amp; Ride facilities</td>
<td>Park &amp; ride facilities at key locations inter-faced with prioritised public transport services through congested areas</td>
<td>To encourage private motorists to change to prioritised public transport through congested areas where use of private transport may be discouraged by a variety of measures</td>
<td>√</td>
</tr>
<tr>
<td>Address security concerns</td>
<td>Improved personal safety for walking, cycling, and public transport</td>
<td>To increase the attractiveness and sense of security on all public transport modes throughout the city</td>
<td>√</td>
</tr>
<tr>
<td>Road space reallocation</td>
<td>Roadway design and management practices</td>
<td>To encourage design and management practice which Improves the efficiency of PT operations</td>
<td>√</td>
</tr>
<tr>
<td>Promotion of public transport</td>
<td>Package and market public transport and develop effective user information systems</td>
<td>To raise the profile of public transport and public awareness of PT benefits and achievements as well as increasing user-friendliness of PT</td>
<td>√</td>
</tr>
<tr>
<td>Area Traffic Control system</td>
<td>The use of computerised signal control systems to manage traffic flows incl. possible priority treatment of PT</td>
<td>To minimise delay for PT vehicles</td>
<td>√</td>
</tr>
<tr>
<td>Intelligent Transportation Systems</td>
<td>Use of information technologies to provide the PT drivers with real time information and/or instructions to avoid problem locations etc</td>
<td>To improve PT system performance</td>
<td>√</td>
</tr>
</tbody>
</table>
### Table 7.6: Land Use Development Management Measures

<table>
<thead>
<tr>
<th>TDM Measure</th>
<th>Description</th>
<th>Objectives</th>
<th>Implementation Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Efficient Development</td>
<td>Locate different categories of development where accessibility and mobility needs can be effectively met</td>
<td>To ensure people access, with emphasis on public transport, as well as freight and commercial access and mobility needs can be met by safe, cost effective transport systems</td>
<td></td>
</tr>
<tr>
<td>Development densification in support of public transport</td>
<td>Incentives for densification at identified public transport Nodes and along priority corridors</td>
<td>To increase convenience, effectiveness and cost efficiency of public transport system</td>
<td>√</td>
</tr>
<tr>
<td>Public transport dependent development closer to major trip attractors</td>
<td>Residential development on subsidised land closer to major employment areas, and highly accessible to public transport</td>
<td>To reduce cost of travel and cost of providing effective, efficient public transport</td>
<td>√</td>
</tr>
<tr>
<td>Car free districts and pedestrianised streets</td>
<td>Selected areas and times of minimal private vehicle use</td>
<td>To humanise selected key areas of city and reduce negative impact of private transport on these areas</td>
<td>√</td>
</tr>
<tr>
<td>TDM Measure</td>
<td>Description</td>
<td>Objectives</td>
<td>Implementation Timing</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Prioritising appropriate transportation measures</td>
<td>Policy which prioritises public transport in the transportation system and TDM measures which minimize the negative impact of private transport on the urban environment</td>
<td>To encourage use of public transport and minimize the negative impact of transport on the city whilst ensuring mobility and accessibility for all stake-holder groups</td>
<td>√</td>
</tr>
<tr>
<td>Regulatory reform</td>
<td>Policy changes to encourage regulated competition, innovation, safety and efficiency in transport systems and services</td>
<td>To regulate all categories of transport services to increase accessibility to safe, cost-efficient, environmentally sensitive, sustainable transport systems and services for all stake-holder groups</td>
<td>√</td>
</tr>
<tr>
<td>Institutional reforms</td>
<td>Development and support of appropriate institutional structures and processes</td>
<td>To provide structures that can promote and deliver sustainable, efficient transport systems and services meeting the needs of all stake-holder groups</td>
<td>√</td>
</tr>
<tr>
<td>Comprehensive market reforms</td>
<td>Policy changes that result in more efficient and fair transportation pricing</td>
<td>To promote user pays principles whilst increasing transport affordability and accessibility to the poor and ensuring cost efficient freight transport</td>
<td>√</td>
</tr>
<tr>
<td>Asset management</td>
<td>Policies and programmes to preserve valuable assets</td>
<td>To maximise utility of existing assets that support effective, efficient sustainable transport</td>
<td>√</td>
</tr>
</tbody>
</table>
7.5 eThekwini’s Transport Management Strategy

The ETA’s TDM strategy comprises a series of projects defined within the context of various possible measures that could be implemented in the short, medium and long terms (section 7.4).

Although the transportation planning process has identified a range of short to long term projects in the various aspects of public and private transportation, the ETA’s TDM strategy focuses on those projects that should be initiated in the short term period, years 1 to 5. These form a part of the prioritised implementation programme in the ITP.

The following projects comprise the TDM strategy for the eThekwini area:

1. The current contract for upgrade and expansion of the area traffic control system (ATC) which provides real time traffic control in central Durban. This system optimises traffic flows and reduces congestion and related pollution.

2. A parking investigation to consider more efficient use of available parking facilities and develop a comprehensive parking revenue/cost recovery programme, taking into consideration the cost of providing and maintaining facilities.

3. An investigation to identify congestion locations along the public transport routes and evaluation of possible options for bypassing the location or introducing some form of PT priority measure to overcome the congestion or reduce the impact thereof.

4. A pilot study for introducing and monitoring the impact of upgraded public transport security at selected rank (s).

5. Prioritised public transport distribution system in the CBD. This system introduced on a phased basis would interface with the various major bus, rail and taxi services to the CBD. Public transport priority lanes and priority intersection control using SCOOT would also be accompanied by CCTV linked monitoring and enforcement.

6. A pilot project for a cycling ‘system’ from Clermont to New Germany/ Pinetown comprising cycle paths/routes and terminal infrastructure.
7 Phased implementation of taxi and bus rank rationalisation in Durban’s Warwick Avenue area; developing towards a partial or total consolidation of bus and taxi activity in a multi-level Berea station transport interchange.

8 Modernisation of bus/taxi fleet. Modern reliable buses are required in all new bus service contracts. In future expanded areas of the public transport system will be provided in terms of service contracts. As this happens not only buses but also any taxis providing service within these contracts will have to meet certain fleet standard specifications. Apart from the requirement of contracts for modern, safe equipment the implementation of the Taxi Re-capitalisation programme will result in the progressive modernisation of the taxi fleet. These processes will undoubtedly result in fleet modernisation on an ongoing basis commencing in the short term.

9 Rail system and service upgrade. This is at the heart of eThekwini’s public transport strategy and could extend from the short term through to the long term programme. As a part of the TDM strategy the ETA will continue to pursue investment in the rail system and infrastructure either through national funding or some form of concession agreement.

10 Co-ordinated, integrated feeder services to rail. This will consist of a pilot project to initiate a taxi and/or bus feeder service to rail combined with integrated ticketing and appropriate station upgrade if required. This pilot location will be selected from one of the following:-

- one of the Umlazi stations
- KwaMashu/ Ntuzuma to one of the KwaMashu spur line stations
- Maydon Wharf/Bayhead/ Island View to Congella station
- Jacobs/Clairwood to Montclair station
- Prospecton to Isipingo station
Although not a project as such, policy has been developed for this first ITP giving priority to public transport in the planning and development of the transportation system and in support of appropriate TDM measures to minimise the negative impact of private transport on the environment.

Completion of pilot projects will undoubtedly give rise to other projects with some of these being incorporated into the TDM strategy at a later stage in the planning process.

### 7.6 Congestion Monitoring

Whilst various types of TDM measures are effective in reducing congestion, questions arise around the level at which congestion is unacceptable possibly requiring various types of TDM measures or further investment in public transport or roads infrastructure.

Further questions related to the above are:-

- What criteria or indices should be used to measure congestion?

- What levels of congestion should be acceptable for different parts of the city (urban/rural) taking into consideration dependency on internal road freight movements?

- What should targets and related policy be in regard to congestion for these various conditions including issues related to greenhouse gases and carbon emissions?

These questions formed the basis of an investigation conducted by eThekwini Municipality of international and South African practice.

Whilst various criteria were identified in research and by respondents, no benchmark values were given with the exception of one major city in South Africa identifying level of service (LOS) D as their basis for considering an upgrade of existing facilities.
eThekwini Municipality currently conduct a regular comprehensive programme of traffic counts as well as travel time surveys. Using this data the Municipality monitors level of service (LOS), volume/capacity (V/C) and travel time on different elements of the major road network and to a lesser degree the minor road system. Currently eThekwini also use LOS D as the basis for an acceptable level of congestion in peak conditions.
8.1 Background

Against the background of seriously escalating public transport subsidies country-wide, associated with decreasing levels of public transport services standards, the National Department of Transport (NDOT) in 1999 initiated “the Fundamental Restructuring of Durban’s Public Transport System” as a flagship project. This project, in line with national policy, was aimed at developing the most cost effective public transport system strategy for the existing and future metropolitan area, providing a quality system with levels of service similar to or better than current service levels. An associated spatial strategy to support public transport was developed.

This section of the Public Transport Plan describes:

- key characteristics and issues around the existing public transport system
- alternative system strategies investigated
- the recommended system and modal strategy

The Operating Licence Strategy (OLS) needed to give effect to the implementation of the recommended system is discussed in Section 9.

8.2 The Existing Public Transport System

8.2.1 System Description

Figure 8.1 shows the existing system of public transport nodes and services.

The commuter rail system comprises the following:

- A north-south line following the coast from beyond the limits of the metro area to both the north and south.  
- The mainline into the hinterland which carries commuters within the metropolitan area.
- A circuitous line between Pinetown CBD and Rosshburgh Station on the north-south line.

Rail system
Figure 8.1: Existing Public Transport Nodes and Services
Three spur lines into the major residential areas of Umlazi, Chatsworth, and KwaMashu.

A spur line along the south side of the harbour to the lower Bluff which is largely undeveloped.

A section of single line adjacent to North Coast Road, in parallel to the main north-south line.

The taxi and bus major route system provides extensive coverage throughout the metro area including services parallel to and in direct competition with most of the rail services. In most locations the bus and taxi services follow similar routes except in the Outer West, west of Pinetown. In these areas most of the routes are taxi routes with limited or no bus service, with the exception of bus service to Mpumalanga from Durban and the Pinetown areas.

The metropolitan area has four major public transport nodes with a number of other nodes of local significance. The major nodes are located at:

- Isipingo in the south
- Durban CBD
- Bridge City to the north
- Pinetown to the west

Isipingo in the south and Bridge City (which is a key future transport node in the north) define the limits of the major north-south coastal public transport corridor. Durban CBD located in the middle of this corridor is a major attractor for trips from both the north and the south.

The last major node is Pinetown Central which is largely a hub for services from the Outer West and industrial and residential areas to the south of Pinetown central and to the north-east.

Although Pinetown is a major node it is not connected by a major corridor to any other node of significance. Consequently, the only corridor carrying sufficiently high volumes of commuters to be defined as major public transport corridor is the north-south coastal corridor between Isipingo in the south and Bridge City in the north.
Figure 8.2: Proposed Public Transport System Strategy with North-South Corridor

- Public Transport Corridor
- Major Public Transport Nodes
- Rail Service Inside Corridor – Existing
- Rail Service Inside Corridor – Future
- Rail Service Outside Corridor
- Major Bus/Taxi Routes Inside Corridor
- Major Bus/Taxi Routes Outside Corridor

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Other public transport nodes of significance include:-

- In the south
  - Prospecton, an industrial area immediately south of the Isipingo node

- In the west
  - Hillcrest which is becoming a sub-regional centre

- In the north
  - Phoenix town centre
  - Verulam with a significant concentration of bus and taxi activity
  - Tongaat also with a major concentration of bus and taxi activity
  - the developing node around the Umhlanga town centre

8.2.2 Rail System, Service Characteristics and Issues

The existing rail system is characterised by decreasing levels of service and high levels of subsidy support, which is currently provided by the National Department of Transport. Rolling stock is dilapidated and train sets that become unsafe will have to be removed from service. Parts of the signal system are antiquated and raise concerns over reliability of efficient operations.

Many of the eight rail lines operate with very low passenger loads and are deemed to be economically inefficient. Clearly discontinuation of service on such lines would only take place based on the outcome of a full economic evaluation. However for analytical purposes, in terms of the proposed strategies, assumptions have been made in the public transport plan on the closure of some of these lines.

The major issue around rail is the real possibility of a shut down of all parts of the system unless there is a major investment in the system either through existing institutional structures or through some form of concession.

8.2.3 Bus System, Service Characteristics and Issues

The existing bus service on a system comprising some 1 400 unidirectional routes is provided by approximately 200 operators in a mix of subsidised contracts and unsubsidised services provided in terms of the operator route permits.
Currently there are three tendered, one negotiated and two interim bus contracts covering approximately 70% of the metropolitan route system. Some 170 unsubsidised bus operators in thirteen associations along with approximately 20 independent operators provide service on the remaining 30% of the route system. At this time there are no unsubsidised commercial contracts.

Over recent years efforts to contain rapidly escalating subsidy accompanied by reducing levels of service have been addressed in part by formal subsidised bus contracts. The most recent of these is the privatisation of Durban Transport which accounts for over one third of the bus fleet in the metro area operating on approximately half of the bus routes.

Notwithstanding these changes peak passenger load factors on many bus trips are low. Outside of subsidised service contracts operators experiencing decreasing ridership and profit margins are unable to upgrade their fleet and struggle to maintain service levels with aging vehicles.

Major issues around the bus system and service are that bus and rail services operate in direct competition; unsubsidised bus services are deteriorating and many bus trips operate with low passenger loads even in peak periods.

8.2.4 Taxi System and Service Characteristics and Issues

There are approximately 120 taxi associations serving the metro area and on completion of the provincial taxi data base an accurate figure for the number of operators will also be known. Data on number of routes and peak direction passenger loading is documented in the CPTR tabulations.

Generally the taxi industry operates in direct competition with bus and rail service throughout the metro area. Peak passenger loads on most routes are high although not always over the full extent of the journey. In some areas indications are that over-trading has resulted in associations operating with split schedules whereby different operators provide the service on different days of the week. This has the effect of keeping passenger loading at a reasonably high level.
Notwithstanding the high passenger loads the unsubsidised taxi industry does not generate profit margins that support fleet replacement. Most of the fleet is old and breakdowns are frequent. Safety is a major concern.

In a number of areas the taxi associations ‘roster’ their operators who in terms of some form of schedule operate at different times on a combination of lucrative routes and low profit routes. On this basis association members are assured of their fair share of the potential fare revenue.

Issues around the taxi system and service relate to the overall deterioration of the taxi fleet, resulting in reduced safety and reliability of service, over-trading in some areas which results in below average profit levels and association competition for new routes or service which often leads to aggressive confrontation and violence. Ongoing competition with subsidised public transport services also reduces the profitability of subsidised services (bus and rail). This causes pressure for increased subsidy in future bus contracts.

8.2.5 Combined System Issues

Overall the public transport system is economically inefficient with many services in direct competition with each other resulting in unprofitable rail and bus trips and in some instances taxi trips.

Generally, apart from subsidised bus contracts, the rail, bus and taxi service fleet is in an advanced stage of deterioration with no signs of significant investment in new fleet in the short term future. Consequently, service levels are dropping and public transport patronage is reducing.

Against this background proposals have been developed to rationalise and restructure the public transport system and services in order to address the fundamental issues highlighted in this section. The systems tested and the adopted recommended system are described in the following section.

8.3 Public Transport System Proposals

8.3.1 Introduction

This section, against the background of issues highlighted in Section 8.2, sets out the public transport proposals for a system strategy which rationalises and restructures the existing inefficient supply-driven system, in terms of the policy guidelines documented in Section 3 of this Plan.

The focus is on providing a passenger-orientated, demand-driven, economically efficient and integrated system.
This section describes the recommended public transport system which has an emphasis on the major north-south coastal corridor.

This corridor is the dominant feature of the public transport system best serving the development in the metropolitan area. It is supported by a number of spatial strategies which were defined by some of the departments of the City.

8.3.2 **Alternative Public Transport Systems Tested**

The process of determining a recommended public transport system for the metro area included the testing of ten alternative strategies. These were based on making best use of one of the three principle modes of rail, bus and taxi. The bus mode included use of articulated bus, the new 35 seater midibus from the national governments proposed Recapitalisation Programme, as well as the standard bus. The taxi services were based on the new 18 seater minibus taxi proposed within the same programme.

Each alternative was a variation on one of the main mode themes. In each case the principle mode was made to work as effectively as possible with an optimised support system from the other modes. In some alternatives the services were planned to operate on dedicated right-of-way in the most heavily trafficked north-south coastal corridor. In that corridor various options existed between the use of rail and articulated buses operating on dedicated right-of-way (busway) within the existing rail reserve. These services were supported by tailored feeder services with different mode options.

The system serving other corridors of lesser demand was defined either in terms of rail service on existing rail lines or some combination of bus and taxi on the road system. In the alternative with a busway in the north-south corridor bus service could operate with articulated buses on routes that extended beyond the busway, depending on the location and demand. Feeder services included use of either taxis or midibuses, depending on demand.

For purposes of the strategic analysis, other areas of the public transport system, outside of significant demand corridors, were based on use of the minibus taxis and standard buses, although at the level of detail of service planning, service options would also consider midibus and articulated bus modes.
The alternatives tested fit within one of three groups:-

1. The existing system of rail, bus and taxi routes with services optimised.

2. Systems with no rail service and an emphasis on bus with a busway operating in the heavily trafficked north-south coastal corridor.

3. Systems with an emphasis on rail, supported by feeder services.

In developing this wide spectrum of alternatives, the intent was to explore a range of alternatives from a limited intervention solution through to extreme options.

8.3.3 The Proposed System

The proposed public transport system for the eThekwini metropolitan area (Figure 8.2) is based on:-

- Use of the most appropriate public transport modes for service effectiveness and cost efficiency in each part of the system.

  This interprets into rail providing service in the heavy demand north-south coastal corridor between the transport interchange node at Bridge City in the north and a similar node at Isipingo in the south. The implication of this strategy would be to extend the commuter rail line from Duff’s Road Station to Bridge City a distance of approximately three kilometres. Existing spur lines from the north-south line into the residential areas of Umlazi in the south and KwaMashu in the north would form a part of this corridor.

- Relocation of road-based public transport services in direct competition with rail in the high volume north-south coastal corridor.
This interprets into a number of subsidised bus as well as unsubsidised bus and taxi services being relocated or removed from the system, in a phased process using procedures from the City's policy framework.

- Where appropriate, the retention/upgrading of rail supported by integrated feeder systems, in the lower demand corridors, where service and cost benefit analyses justify such systems.
- An attempt using a pilot project to attract ridership back onto the Chatsworth line which is currently under-utilised but has high potential for ridership.
- A combination of bus and taxi modes in other parts of the public transport system with priority for these services where appropriate.
- New or upgraded infrastructure where needed in the system.
- Support for nodal development through the integrated design of major transport transfer/interchanges with land use development at the nodes.
- Support for densification along existing and potential future corridors through development of high levels of accessibility to public transport within the corridors.
- Phased development of universally accessible corridors including special needs groups.

Figure 8.3 indicates the location of the following feeder/distributor service areas which will be developed to operate in support of the north-south rail corridor:-

- In the south, Folweni and KwaMakutha feeding to the Isipingo transport node with a comprehensive feeder network in Umlazi to the various rail stations along the Umlazi line.
- In the north, a feeder system in the Inanda area operating to/from Bridge City which would also be the focal point of a feeder system into parts of the Phoenix area on the north side of the KwaMashu Highway (M25). A comprehensive feeder service in the Ntuzuma and KwaMashu areas would operate to/from stations along the KwaMashu rail spur (predominantly KwaMashu station) and to a limited degree for parts of the area to Bridge City.
In the Central Durban area, a CBD distribution system providing easy access to Berea and Durban stations. This distribution system could be extended to the Berea area.

South of Durban CBD in the South Durban Basin (SDB) a number of feeder/distribution systems integrated with the rail service providing convenient access into this intensely industrialised area extending from the airport north to Bayhead.

Collectively the walk-in catchment area to the north-south rail system together with the service area coverage provided by the various feeder/distribution taxi/bus support system, defines the north-south public transport corridor service area.

## 8.4 Modal Strategies

### 8.4.1 Introduction

The proposed public transport strategies required around each mode forming part of the system are addressed below under the major mode categories of rail, bus and mini-bus taxi.

### 8.4.2 Rail Modal Strategy

The broad modal strategy for rail is the following:

- Focus on a rail-based system solution in the north-south transport corridor between Isipingo rail station in the south and Bridge City (a future major rail/bus/taxi mode interchange on the north); along with spur lines into the heavily populated area of Umlazi in the south and KwaMashu/Ntuzuma in the north.

- Build a new spur line from Duff's Road station to Bridge City which will serve as a major transfer point onto rail from bus and taxi feeder services into the residential areas of KwaMashu, Inanda and Phoenix.

- Initiate a pilot project on the Chatsworth rail line to attract commuters back onto rail by implementing security services and security infrastructure at rail stations.
To achieve the above requires heavy investment in recapitalising the rapidly deteriorating rail fleet, replacing the antiquated signal system in some locations and upgrading various stations within the system. In addition capital is required for the new spur line to Bridge City.

Apart from the above, bus and taxi strategies are required which will give support to the rail system in the potential catchment area of rail services. Such strategies will need to eliminate destructive competition with the primary mode of rail. These are discussed below.
Figure 8.3: Feeder Distributor Service Areas in Support of North-South Rail Corridor
8.4.3 **Bus Modal Strategy**

The broad modal strategy for bus is contingent upon a firm commitment to a concession or alternative funding strategy for rail which will ensure the potential to deliver the rail strategy within a realistic time-frame. The bus modal strategy is the following-

- removal of services in competition with rail in the north-south coastal corridor.
- phased introduction of bus contracts, commercial and subsidised, taking into consideration:
  - use of the most appropriate bus mode (standard or midibus) for effective use of capacity and high standards of service.
  - consolidation of uneconomic trips, with allocation of trips to minibus taxi where warranted by low passenger loading or service frequency.
  - upgrade of vehicles to service contract standards.

Although certain levels of change can be implemented in existing bus contracts, fundamental change can only be effected through new bus contracts. Most existing contracts are for four to five years and many were renewed in 2004. Privatisation of Durban Transport was effected in 2003 on a seven year contract.

8.4.4 **Minibus Taxi Modal Strategy**

The modal strategy around the minibus taxi is also contingent upon the successful development of the rail strategy and the Taxi Recapitalisation Programme. It includes the following:

- rationalisation of taxi services in direct competition with rail or bus contracts.
- phased introduction of commercial or subsidised taxi contracts.
- regulation of the taxi industry through contracts as well as a Quality Service Charter supported by the taxi industry.
- upgrade of vehicles to contract standards, possibly through the national taxi re-capitalisation programme or some alternative.

- empowerment and promotion of the taxi industry to form consortia to tender on bus as well as taxi contracts.

Clearly the timing of implementation of the taxi modal strategy depends on a number of factors apart from the rail strategy. The issue of compensation for removal of licences needs to be resolved at national and provincial levels. The preferred alternative is to reposition a route or service. This also requires consultation and negotiation.

It is also important that opportunities are created for minibus taxi operators who are affected by the restructuring of the public transport system to enter into contracts using other modes of public transport.

### 8.5 Public Transport System and Supporting Land Use Strategies

#### 8.5.1 Introduction

Defining the public transport system in terms of major transport nodes and corridors helps to identify in geographic terms the areas that require integration between transport and the land use it serves. The policy of support for public transport through densification along established corridors and attraction of development to significant transport nodes needs to be structured in terms of development strategies which recognise this relationship.

As described in section 8.3.3 the transport strategy not only identifies a public transport system of nodes and corridors but a spatial strategy which supports such a system.

#### 8.5.2 Public Transport Nodes and Corridors

As shown in the IDP the City has identified a High Priority Public Transport Network (HPPTN). As shown in Figure 8.4, this network comprises a number of sections, some with sufficient public transport demand to be defined as a 'public transport corridor', others with a lower level of demand that is typical of a combination of routes that would not qualify as a corridor but are nevertheless key public transport routes.
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Figure 8.4: N-S Corridor & Significant Public Transport Routes
The north-south sections of the system between Mobeni in the south and Bridge City in the north together with the section into Umlazi are the only parts of the system with adequate demand to be defined as a corridor.

These sections carry between 25 000 and 30 000 bi-directional passengers on all public transport modes. Significant transport nodes along this corridor include:-

- Bridge City
- Durban CBD
- South Durban Basin
- Mobeni
- Isipingo

Although the demand along the section of the priority network between Isipingo and Mobeni is considerably less than on sections to the north, the location of Isipingo as a major transport node logically extends the north-south corridor through to this node.

Other segments of the priority network link the major regional transport node in Pinetown to the South Durban Basin via the M1 and Durban CBD via the M13. Although there is significant demand along these segments, it is relatively light (<10 000 bi-directional peak hour person trips), insufficient to define such routes as corridors. Similarly the demand along the M5, connecting Malvern Town Centre to Durban CBD and the M10 connecting Cato Manor to the CBD is relatively light.

Notwithstanding, these key public transport routes, are important segments of the priority public transport network which where possible should be supported by appropriate land use development.

8.5.3 Spatial Strategies in Support of the Priority Public Transport Network

Spatial strategies to support public transport have been developed and are documented in a report entitled:-

"A Spatial Strategy in Support of the High Priority Public Transport Network - March 2002"

The following table has been taken from this document with modifications related to changes that have occurred over the past several years.
Various land use strategies have been identified for the combined high priority public transport areas of the network and the non-priority area. Strategies for the non-priority area relate to interventions needed to discourage major employment and trip generating development while those in priority areas are focused on sustaining and developing the priority network.

Each of the strategies apply to one or other of five areas within the network; these being:-

**High Priority Network Area:-**

1. The Primary Node comprising the CBD and the industrial harbour area to the south
2. Outer nodes of which Pinetown is the only major node
3. The north-south public transport corridor
4. Key public transport routes

**Low-Priority Network Area:-**

5. Beyond the Priority Network

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<tr>
<th>OBJECTIVES</th>
<th>STRATEGIES</th>
<th>AREAS OF APPLICATION</th>
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<tr>
<td>Protect the current public transport ridership on the HPPTN</td>
<td><strong>Strategy 1:</strong> Protect existing employment opportunities</td>
<td>The R102 route from Isipingo to KwaMashu, the CBD and the South Durban Basin (SDB)</td>
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<td><strong>Strategy 2:</strong> Maintain the quality of high value investment office retail, residential and tourist areas</td>
<td>The CBD</td>
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<td>OBJECTIVES</td>
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<tr>
<td>Protect the current public transport ridership on the HPPTN</td>
<td><strong>Strategy 3:</strong> Discourage the development of major employment opportunities outside HPPTN area</td>
<td>Outside of the Urban Edge</td>
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<td>Increase public transport ridership on the HPPTN</td>
<td><strong>Strategy 4:</strong> Stimulate higher employment and residential densities</td>
<td>Higher employment densities: - SDB - R102 corridor - CBD Higher residential densities: - along full length of the North-South corridor - Pinetown Node</td>
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<td><strong>Strategy 5:</strong> Renewal of areas around major stations and modal interchanges as high density residential, office and retail uses</td>
<td>Along North – South Corridor and Pinetown node</td>
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<td></td>
<td><strong>Strategy 6:</strong> Steer public sector investment (schools, clinics, hospitals and police stations) towards nodes on HPPTN</td>
<td>North – South Corridor and Pinetown Node</td>
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9 OPERATING LICENCE STRATEGY (OLS)

9.1 Purpose of the OLS

The OLS is developed from analysis of the CPTR data surveyed in 2003/2004.

The primary purposes of the OLS are:

- to act as a framework for the eThekwini Transport Authority (ETA) to give direction to the Operating Licence Board (OLB) on the issuing/amendment or withdrawal of taxi or bus operating licences.
- to provide a tool for the ETA to implement the requirements of the Public Transport Plan.

The documentation in this section of the ITP is supported by a separate comprehensive analysis report.

9.2 General Principles

This section sets out key conditions for granting of an operating licence for bus or minibus taxi operations. These conditions include some of the key requirements set down in national legislation (NLTTA 2000) which the provincial Operating Licence Board (OLB) will apply in reviewing applications. As such these requirements/policies are also reflected in the ETA’s policy.

The following policy relates to general principles that set the framework for consideration and allocation of road-based public transport licences.

9.2.1 Licence Allocation Principle

Allocating new licences or required changes to existing is clearly the responsibility of the Operating Licence Board (OLB). In the past the taxi industry in some locations has attempted to control which associations should be allocated licences for new service areas. This creates potential for conflict and is counter-productive in the delivery of a properly rationalised and restructured public transport system.
Problems can also arise when public transport operators take the viewpoint that they have a right to be allocated a licence.

The fundamental principle which address this issue is:-

No. 1 The responsibility for determining the number of public transport licences required vests with the Transport Authority.

The current problems of over-trading in some areas and the need to restructure and rationalise the public transport system and services will necessitate a carefully structured programme of repositioning and in some instances removal of existing licences.

Outstanding issue:

The ETA needs to be able to re-position operators in addressing over-trading and under-trading in different areas as well as to allocate licences in new service areas.

In order that such service changes do not introduce conflict with those operators directly affected, or with those who perceive themselves to be affected, a process must be developed which adequately addresses these potential issues and any others that could be associated with such changes.

New licences to new operators will not be issued except under exceptional circumstances until such time as the problems of over-trading and the need for re-positioning have been dealt with.

9.2.2 Licence Validity Period

In consideration of the validity period for new licence applications the ETA will give due regard to:-

- Current and expected trends in utilisation of the route(s)
- The efficiency of the proposed services in meeting user needs
- Where applicable, in terms of planning recommendations for the future public transport system, the likelihood that the particular mode of public transport may be replaced by another mode
The likelihood that the public transport service may become the subject of a commercial service contract or a subsidised service contract

Policy in this regard is:-

No. 2 As per the requirements of the NLTTA 2000, no new operating licence will be issued for a period longer than five years, except where the licence is issued pursuant of a permit allowed for in terms of provincial legislation, as in the case of a seven year subsidised bus contract.

9.2.3 Transfer of Licence

The ETA’s policy in this regard is:-

No. 3 The ETA will not support applications for the transfer of an operating licence from the holder of the operating licence to another person, for which the holder of the operating licence has been providing the service for less than a period of one year.

Where transfers are permitted the first option for purchase belongs to the ETA.

In the case of the taxi industry, the person to whom the operating licence is transferred must be registered as a member of an association or registered as a non-member. To avoid potential conflict, the ETA will recommend that the person to whom the operating licence is transferred belongs to the same taxi association(s) as those operators that are currently operating on the route.

9.2.4 Number of Taxi Routes per Licence

Outstanding Issue:

The system of route rotation where minibus taxis each have an opportunity to operate on the more profitable routes within a set of routes is problematic and needs to be addressed as part of a longer term licence strategy.
9.2.5 Preparation of Recommendations

Section 9.4 addresses the process of licence approval in respect of the interaction of the Operating Licence Board and the ETA. Within this context the ETA’s policy on the preparation of licence recommendations is as follows:-

**No. 4** The ETA will make its recommendation and any representations it considers fit, having due regard to the Passenger Transport Plan and any other relevant investigations carried out, and submit them to the OLB within the required period.

The ETA’s recommendation will address:-

- rank / holding areas availability at origin and destination
- preferred mode on route/corridor
- utilisation of existing services
- long term planning requirements

9.3 Conditions for Granting of Licences

The following policy relates to conditions that will need to be met for a licence to be approved. All regulations within the Road Traffic Act (1996) will need to be complied with and are not repeated in the PTP.

9.3.1 Person Qualifying for Operating Licence

In line with the requirements of the NLTTA 2000, ETA policy is:-

**No. 5** Except on the conversion of a taxi permit to an operating licence, no person has a right to be issued with an operating licence. An operating licence in respect of a minibus taxi type service may only be granted to a person who is either:-

- a member of a provisionally or fully registered association
- a registered non-member
9.5 

- a person who has applied for registration as a non-member and has been granted a certificate contemplated in section 113(2) of the NTTA

**No. 6** Applicants for bus and minibus taxi licences must show proof of or the ability to secure passenger liability insurance from a recognised insurer.

Operating licences can only be uplifted on presentation of proof of passenger liability cover.

The operating licence will become invalid if at any stage passenger liability cover is terminated and it is the responsibility of the operator to immediately inform the OLB of termination of cover.

**9.3.2 Membership per Route**

**No. 7** A person applying for a new minibus taxi operating licence, on an existing route, must belong to the same association(s) as the operators currently providing service on that route.

**9.3.3 Vehicle Standards and Equipment**

The following policies apply to vehicle standards for approval of a licence, replacement of a vehicle and requirements for special equipment.

**No. 8** All vehicles must comply with SABS or SANS standards and specifications.

**No. 9** Where the holder of an operating licence wishes to replace the vehicle that is specified in the operating licence with another vehicle with the same passenger capacity, the holder must apply to the Board for approval on the basis that the replacing vehicle meets all requirements in the original licence and the quality of service is not affected.

**No.10** Special equipment (eg. Special needs access) attached to approval of a licence must be installed and operational before commencement of service.
9.3.4 Access to Ranking

No.11 The granting of an operating licence is conditional upon the necessary rank permits being obtained and annually renewed and if a rank permit is not renewed the operator must cease to operate on that route.

The procedure for applying for a minibus taxi or metered taxi rank permit can be found in the annexures available on CD. An operating licence must state the authorised ranks or terminals specific to the route on the licence. Other points of picking up and setting down of passengers along routes will only be permissible at points specifically designated by the ETA.

Where the need for public transport services is justified in terms of user demand, but insufficient capacity exists at the pick-up and drop-off points, support of the application will be subject to there being available funding for rationalisation or upgrading of the required facilities.

9.3.5 Access to Holding for Minibus Taxi Operators

No.12 It will be the responsibility of the minibus taxi licence applicant to identify suitable holding space in a location acceptable to the ETA.

9.3.6 Service Levels for Minibus Taxi

No.13 Subject to other conditions being met the following guidelines will apply to consideration of licence approvals for services between defined origin-destinations:

- **acceptance** if demand 100% or more of existing service capacity

- **possible acceptance** dependent upon other considerations if demand = 50 - 99% of capacity eg. (i) pending addressing current issues of over-trading and the possible opportunities to re-position selected services; (ii) in CBD other criteria related to service frequency/wait time may be used to determine need
- **rejection** if demand < 50% of capacity unless offering a premium user-pays or special needs service

9.3.7 **Timetable and Fare Data**

**No. 14** Service timetable or frequency of service must be attached to licence applications.

**No. 15** Special conditions regarding fares must be attached to licence applications.

9.4 **Licence Application and Approval Process**

9.4.1 **The Process**

The approval process involves the Provincial Operating Licence Board (OLB), the KZN Department of Transport and the eThekwini Transport Authority.

In broad terms the process is as follows:-

- The applicant submits application to the OLB in terms of required content and defined procedures;

- the OLB supported by the KZNDOT evaluates the application in terms of the defined criteria detailed in KZNDOT’s document ‘Operating Licence Strategy’ for KZN.

- if the application meets these criteria it is forwarded to the ETA with support data for consideration and approval. These criteria include inter alia:-
  - demonstrated need for service
  - demonstrated financial viability
  - fitting within the PTP
  - meeting legislated requirements for the applicant and vehicle

- the ETA will make recommendation to the OLB for approval, deferment or rejection based on their own assessment of the application.
Currently in terms of KZNDOT requirements the applicant is responsible for demonstrating demand and need for service as well as the preparation of a business plan demonstrating financial viability. The KZNDOT requires the proposal to be submitted in terms of a proforma which has not yet been finalised.

The ETA's position regarding the provision of relevant supply and demand data is that the CPTR is the database. The relevancy of this database will be maintained on the basis of selective key counts and observations only, on an annual basis, with a full survey programme being conducted at an interval yet to be determined, but possibly every five years. Further, the ETA deems this data set to be suitably accurate to make valid recommendations on all applications.

9.4.2 The ETA's Administrative Structure

The review of licence applications received from the KZNDOT will be managed by the structure shown in Figure 9.1. This group with their supporting staff will be able to evaluate an application from any aspect of current supply, demand, as well as problems and issues within the context of current and future system needs.

![Figure 9.1: ETA Licence Application Adjudication Structure](image)

9.5 Public Transport Enforcement Strategy

Public transport enforcement is a specialised area of law enforcement. The eThekwini Transport Authority has entered into a service agreement with the eThekwini Metropolitan Police Service for this purpose. In terms of this agreement the police services provide a dedicated force for enforcement which is directly accountable to the ETA in terms of the Service Agreement, contained in the annexures on CD.
In terms of this agreement the police service referred to as the Enforcement Agent will be responsible for:-

- On the ground regulation of operators providing public transport services;
- Monitoring and regulating the conduct of operators and drivers of public transport services, ensuring compliance with the Public Transport Operational Code prescribed by the MEC for Transport in KZN in April 2001;
- Enforcement of municipal by laws associated with the operation of public transport services including access to and use of public transport facilities such as ranks, holding areas, bus stops, lay byes, etc.
- Enforcement of quality control and safety aspects associated with the operation of public transport vehicles in terms of the National Road Traffic Act and relevant regulations.

In support of the above the development of a Quality Service Charter and Passenger Service Charter (as referred to in Section 3 - Broad Public Transport Policy) will also integrate into the enforcement strategy framework.

### 9.6 Operating Licence Strategy Analysis - Parameters and Criteria

Full analysis of the CPTR and the preparation of the OLS are contained in the Operating Licence Strategy available in the annexures on CD,

In evaluating PT system performance there were several parameters for which values were required, related to individual bus and taxi routes in the system; these being:-

- Utilisation rate (based on seated capacity for taxi, seated & standing for bus)
- Passenger volume
- Frequency/headway and waiting time
- Fleet factor with average speed and turnaround time

In analysing route performance for each survey period, it is the peak hour for each route which is critical. Parameter values for the morning or afternoon peak hour were therefore used in the analysis.
The following sets out the values and considerations used for each of the above in preparing the OLS:

- **Utilisation Rate (UR)**
  - Bus under-utilisation - UR < 40%
  - Bus over-utilisation - UR > 100%
  - Taxi under-utilisation - UR < 50%
  - Taxi over-utilisation - UR > 99%

The differences by mode are due to buses carrying standees and to taxis usually waiting until they are full before departing.

- **Passenger Volume**

  Hourly volume was the primary determinant in considering the most appropriate mode, conditioned by minimum desirable frequency. In the interests of minimising changes of mode, the volume threshold for recommending smaller vehicles on bus routes was made lower than the threshold for larger vehicles on taxi routes, as shown in the following table.

<table>
<thead>
<tr>
<th>Route Mode</th>
<th>Route Passengers/hr (major direction)</th>
<th>Recommended Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>&lt; 100</td>
<td>16/18 Taxi</td>
</tr>
<tr>
<td></td>
<td>100 - 200</td>
<td>35 Taxi Midibus</td>
</tr>
<tr>
<td></td>
<td>&gt; 200</td>
<td>80-100 Taxi Standard Bus</td>
</tr>
<tr>
<td>Taxi</td>
<td>&lt; 300</td>
<td>16/18 Taxi</td>
</tr>
<tr>
<td></td>
<td>300-500</td>
<td>35 Taxi Midibus</td>
</tr>
<tr>
<td></td>
<td>&gt; 500</td>
<td>80-100 Taxi Standard Bus</td>
</tr>
</tbody>
</table>

- **Frequency/Headway and Waiting Time**

  These factors are related in theory but not always in practice. Allowing for extraordinary circumstances in the analysis, for general purposes in the peak hour, a 15 minute wait time was adopted as the threshold between acceptable and poor level of service. This translates into desirable maximum headway of 20 minutes or 3 vehicles/hour. The values in the following table show the frequency/headway/waiting time values that are applied in considering the most appropriate mode.
<table>
<thead>
<tr>
<th>Route Mode</th>
<th>Route Pass/hr</th>
<th>Vehicle Type</th>
<th>Frequency (Trips/hr)</th>
<th>Headway (minutes)</th>
<th>Waiting Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>&lt; 100</td>
<td>Taxi Midibus</td>
<td>up to 6</td>
<td>down to 10</td>
<td>5 or more</td>
</tr>
<tr>
<td></td>
<td>100 - 200</td>
<td></td>
<td>3 to 6</td>
<td>10 to 20</td>
<td>5 to 15</td>
</tr>
<tr>
<td></td>
<td>&gt; 200</td>
<td>Standard Bus</td>
<td>3 or more</td>
<td>20 or less</td>
<td>up to 15</td>
</tr>
<tr>
<td>Taxi</td>
<td>&lt; 300</td>
<td>Taxi Midibus</td>
<td>up to 20</td>
<td>down to 3</td>
<td>3 or more</td>
</tr>
<tr>
<td></td>
<td>300-500</td>
<td>Standard Bus</td>
<td>9 to 15</td>
<td>4 to 7</td>
<td>3 to 6</td>
</tr>
<tr>
<td></td>
<td>&gt; 500</td>
<td></td>
<td>6 or more</td>
<td>10 or less</td>
<td>up to 6</td>
</tr>
</tbody>
</table>

In framing recommendations, the target frequency was considered to be 3 vehicles per hour or more when considering vehicle types.

> Fleet Factor (FF)

FF is a route related parameter, which is an indication of the efficiency of fleet. It is the theoretical fleet size needed/actual fleet to operate the route and for bus and taxi is based on the route distance, an assumed average speed and layover time (both controllable), the number of vehicle trips and the number of unique registration numbers, average vehicle capacity and the number of passengers. Assumed average speed was 30km/hour and layover time 10 minutes. Low values of fleet factor represent inefficient operation and high values more efficient operation. The normal value ought to be 1.0 if the correct speed was assumed. The threshold value for reasonable fleet use was taken as 0.9, which was used, inter alia, in recommending whether or not new taxi licences should be issued.

### 9.7 Categories of Evaluation

Three categories of evaluation were carried out in preparing the OLS; these being:-

- Corridor analysis of movements between significant residential and employment areas.

- Individual route evaluation of performance with recommendations, including contracted bus services and routes running through Pinetown CBD split for analysis purposes.

- Taxi association evaluation to assist in consideration of applications by an association not specifically for an individual route.
9.8 Analysis

As part of the analysis for preparation of the OLS utilisation of surveyed bus and taxi services was summarised by operator/association (Annexure A.1). Totals for the eThekwini area are shown in Table 9.1.

Table 9.1: Bus and Taxi Utilisation of Surveyed Routes (Peak Hour)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Time</th>
<th>Routes</th>
<th>Vehicle Trips</th>
<th>Service Cap</th>
<th>Passengers</th>
<th>Utilisation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>AM</td>
<td>697</td>
<td>1 489</td>
<td>128 056</td>
<td>94 232</td>
<td>74</td>
</tr>
<tr>
<td>Bus</td>
<td>PM</td>
<td>467</td>
<td>996</td>
<td>85 503</td>
<td>63 790</td>
<td>75</td>
</tr>
<tr>
<td>Taxi</td>
<td>AM</td>
<td>565</td>
<td>7 389</td>
<td>111 787</td>
<td>94 494</td>
<td>85</td>
</tr>
<tr>
<td>Taxi</td>
<td>PM</td>
<td>449</td>
<td>5 316</td>
<td>80 546</td>
<td>78 116</td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2 178</td>
<td>15 190</td>
<td>405 892</td>
<td>330 632</td>
<td>81</td>
</tr>
</tbody>
</table>

9.8.1 Corridor Analysis

The corridor analysis focuses on the peak hour commuter movement between 55 residential and 23 employment areas of significance which are composed of groups or single traffic zones used in the metropolitan traffic model. The major inter-area AM peak hour passenger movements greater than 1000 are shown in Table 9.2. The following points are also worth noting:

- There are only seven employment areas that attract more than 1000 public transport passengers per hour from any of the individual major residential areas.
- Four of these employment areas; Tongaat Central, Verulam Central Isipingo and Hammarsdale only attract such volumes from residential areas in close proximity to the employment areas.
- Pinetown CBD is the only other employment area apart from Durban Central (Durban CBD and Point) which attracts volumes of > 1000 passengers per hour from remote residential areas.
- Durban CBD attracts volumes of >1000 passengers per hour from 21 of the residential areas located throughout the Municipality.
Table 9.2: AM Peak Hour Bus and Taxi Passengers (Volumes > 1000, to nearest hundred)

<table>
<thead>
<tr>
<th>No</th>
<th>Analysis Area</th>
<th>E01 Tongaat Central</th>
<th>E02 Verulam Central</th>
<th>E08 Hammarsdale</th>
<th>E11 Pinetown CBD</th>
<th>E15 Point</th>
<th>E16 Durban CBD</th>
<th>E23 Isipingo</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01</td>
<td>Tongaat Residential</td>
<td>2 900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R03</td>
<td>Verulam Residential</td>
<td></td>
<td>2 500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R04</td>
<td>Phoenix South</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R05</td>
<td>Phoenix North</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R07</td>
<td>Amaoti/Ohlange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R08</td>
<td>Piesang River</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R09</td>
<td>Amatikwe/Gqokazi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R10</td>
<td>Newtown A/Gwala’s House</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R11</td>
<td>Ntuzuma</td>
<td></td>
<td></td>
<td>1800</td>
<td>1200</td>
<td>3800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R12</td>
<td>Lindelani</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R16</td>
<td>Newlands West</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R17</td>
<td>Newlands East</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R20</td>
<td>Chesterville</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R21</td>
<td>Cato Manor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R23</td>
<td>Berea North</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R25</td>
<td>Clare Estate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R27</td>
<td>Clermont/KwaDabeka</td>
<td></td>
<td></td>
<td>2800</td>
<td>1900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R34</td>
<td>Mpumalanga</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R38</td>
<td>St Wendolins/Klaarwater</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>R39</td>
<td>Chatsworth West/Shallcross</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R40</td>
<td>Chatsworth East</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R43</td>
<td>Merewent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R46</td>
<td>Umlazi North</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R47</td>
<td>Umlazi Central</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R48</td>
<td>Umlazi South</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R50</td>
<td>Folweni/Golokodo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>R53</td>
<td>Adams/Msahweni</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1600</td>
<td></td>
</tr>
</tbody>
</table>
The OLS report shows corridor movements from each major residential origin area to the 3 major trip transfer centres (Durban, Isipingo and Pinetown) in the morning peak hour as well as the reverse movement from the 3 areas in the afternoon peak hour. The overview sheets (example Figure 9.2) include a table of inter-area service statistics by mode, a small map showing the routes, a map showing band width arrows and passenger totals along with a paragraph of comments.

The Durban CBD information for the afternoon peak is shown on the next three pages. Information on the numerous destinations shown in the OLS are grouped into 3 regions in the following table with the bus and taxi routes plotted on the respective maps (Figure 9.3 and 9.4). The salient feature of the two maps is the wide coverage of the metropolitan area by Durban-based routes, both bus and taxi. It is also worth noting the high utilisation levels for both bus and taxi services in the PM peak hour.

**Table 9.3: Area to Area Corridor Service Analysis**

<table>
<thead>
<tr>
<th>Destination Area</th>
<th>Mode</th>
<th>No. of Routes</th>
<th>Vehicle Trips</th>
<th>Service Capacity</th>
<th>Passengers</th>
<th>Utilisation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>North (Bus)</td>
<td></td>
<td>46</td>
<td>129</td>
<td>11891</td>
<td>10313</td>
<td>87</td>
</tr>
<tr>
<td>West (Bus)</td>
<td></td>
<td>56</td>
<td>187</td>
<td>12357</td>
<td>8727</td>
<td>71</td>
</tr>
<tr>
<td>South (Bus)</td>
<td></td>
<td>44</td>
<td>113</td>
<td>10673</td>
<td>8482</td>
<td>79</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td></td>
<td><strong>146</strong></td>
<td><strong>429</strong></td>
<td><strong>34921</strong></td>
<td><strong>27522</strong></td>
<td><strong>79</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Destination Area</th>
<th>Mode</th>
<th>No. of Routes</th>
<th>Vehicle Trips</th>
<th>Service Capacity</th>
<th>Passengers</th>
<th>Utilisation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>North (Taxi)</td>
<td></td>
<td>93</td>
<td>908</td>
<td>14012</td>
<td>13773</td>
<td>98</td>
</tr>
<tr>
<td>West (Taxi)</td>
<td></td>
<td>47</td>
<td>793</td>
<td>11979</td>
<td>11754</td>
<td>98</td>
</tr>
<tr>
<td>South (Taxi)</td>
<td></td>
<td>50</td>
<td>767</td>
<td>11550</td>
<td>11343</td>
<td>98</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td></td>
<td><strong>190</strong></td>
<td><strong>2468</strong></td>
<td><strong>37541</strong></td>
<td><strong>36870</strong></td>
<td><strong>98</strong></td>
</tr>
</tbody>
</table>
### Figure 9.2: Area to Area Corridor Services Analysis

**R07 Amaoti/Ohlanga to Major Employment Areas: AM Peak Hour**

<table>
<thead>
<tr>
<th>Destination Area</th>
<th>Mode</th>
<th>No. of Routes</th>
<th>Vehicle Trips</th>
<th>Service Capacity</th>
<th>Passengers</th>
<th>Utilisation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>E03 Umhlanga Bus</td>
<td>2</td>
<td>2</td>
<td>181</td>
<td>150</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>E05 Hypermarket Bus</td>
<td>1</td>
<td>2</td>
<td>180</td>
<td>182</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>E11 Pinetown CBD Bus</td>
<td>2</td>
<td>2</td>
<td>183</td>
<td>150</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>E16 Durban CBD Bus</td>
<td>1</td>
<td>2</td>
<td>181</td>
<td>150</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>E20 Mobeni Bus</td>
<td>1</td>
<td>1</td>
<td>90</td>
<td>75</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>7</strong></td>
<td><strong>9</strong></td>
<td><strong>815</strong></td>
<td><strong>707</strong></td>
<td><strong>87</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Destination Area</th>
<th>Mode</th>
<th>No. of Routes</th>
<th>Vehicle Trips</th>
<th>Service Capacity</th>
<th>Passengers</th>
<th>Utilisation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>E02 Verulam Central Taxi</td>
<td>4</td>
<td>18</td>
<td>279</td>
<td>127</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>E03 Umhlanga Taxi</td>
<td>2</td>
<td>8</td>
<td>120</td>
<td>55</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>E16 Durban CBD Taxi</td>
<td>7</td>
<td>72</td>
<td>1149</td>
<td>992</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>13</strong></td>
<td><strong>98</strong></td>
<td><strong>1548</strong></td>
<td><strong>1174</strong></td>
<td><strong>76</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Comments**

Total passengers some 1900/hr. Bus routes to Umhlanga (29km) with good utilisation and fleet factors, Hypermarket (32km) fully utilised with high fleet factors, Pinetown (41km) fully utilised with high fleet factor, Durban CBD (38km) with high utilisation and fleet factor, and Mobeni (51km) with high utilisation and fleet factor. The Amaoti Taxi Association operate to Verulam, Umhlanga and Durban CBD, from several origins on D403 only 1km apart, inter alia, similar to eTiyeni and Amaotana, with low and variable utilisation (13-99%) the majority of routes being between 25 and 75%. Fleet factors vary from 0.19 to 1.21 which reflect erratic use of the fleet and of capacity, except for the Durban routes, most of which are satisfactory. There appears to be an oversupply situation which could be ameliorated somewhat by route rescheduling. When Fundamental Restructuring is implemented the Durban services should become feeders to Inanda Station 1.
Figure 9.3: Area to Area Corridor Service Analysis
Bus Routes from Durban CBD
Figure 9.4: Area to Area Corridor Service Analysis
Taxi Routes from Durban CBD
9.9 Individual Routes Evaluation

The area to area corridor analysis provides a good overview of service utilisation throughout the Municipality but it is not detailed enough to consider applications for route licences. The OLS therefore evaluates each of the over 3000 individual routes giving comments and recommendations for each. The standard comments and recommendations shown in Table 9.4 cover a range of conditions that are defined in terms of the criteria discussed in Section 9.2. The taxi industry is over-traded, therefore recommendations support the issue of new licences only in proven cases of shortage of capacity on a particular route.

An example of a route evaluation/comments/recommendations summary sheet is shown in Figure 9.5.

Table 9.4 Standard Route Comments and Recommendations

<table>
<thead>
<tr>
<th>Standard Comments for Individual Routes</th>
<th>Recommendations Related to Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 No peak service found on survey day.</td>
<td>50 Insufficient data for recommendation.</td>
</tr>
<tr>
<td>1 Satisfactory bus operation. No action needed.</td>
<td>51 No further licences at present.</td>
</tr>
<tr>
<td>2 Adequate bus capacity and utilisation, but better frequency needed. 35 Seater would be appropriate.</td>
<td>52 Possible midibus route to match demand. No further licences for standard buses at present.</td>
</tr>
<tr>
<td>3 Bus utilisation 100% or more but poor frequency. 35 Seaters would be appropriate.</td>
<td>53 Possible midibus route to match demand. Alternatively 1 or 2 new licences after verification of patronage.</td>
</tr>
<tr>
<td>4 Inter-city or long distance coach or taxi services. Low frequency not an issue. No action needed.</td>
<td>54 No further licences at present unless unequivocally justified by applicant or until survey data is available.</td>
</tr>
<tr>
<td>5 Low frequency, low volume (&lt;100/hr) bus route. 18 Seaters would be appropriate.</td>
<td>55 Possible route for 18 seater vehicles. Alternatively no further licences at present for standard buses.</td>
</tr>
<tr>
<td>6 Reasonable to good bus frequency and utilisation 100% or more. Candidate for more trips per hour, but boarding volumes at origin usually much lower than driver interview volumes. Further verification of utilisation would be prudent before approval of further licences or trips.</td>
<td>56 1 or 2 new licences after verification of patronage.</td>
</tr>
<tr>
<td>Standard Comments for Individual Routes</td>
<td>Recommendations Related to Comments</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>7 Under-utilised taxi route (&lt;50%).</td>
<td>57 No new licences at present.</td>
</tr>
<tr>
<td>8 Fully utilised taxi route (100% or more), low frequency (3 or less/hr) long wait &gt;15 min. Candidate for more service if fleet factor &gt;0.9.</td>
<td>581 (FF&gt;0.9) - Up to 3 new licences may be issued</td>
</tr>
<tr>
<td>9 Fully utilised taxi route (100% or more), moderate to high frequency (4 or more/hr), moderate (5 to 15 min) wait.</td>
<td>582 (FF&lt;0.9) - No new licences at present, unless shown that fleet is used efficiently.</td>
</tr>
<tr>
<td>10 Fully utilised taxi route (100% or more), moderate to high frequency 4 or more/hr), short wait (&lt;5 min).</td>
<td>59 No new licences to be issued at present.</td>
</tr>
<tr>
<td>11 Fully utilised taxi route (100% or more), moderate to high frequency (4 or more/hr), long wait &gt; 15 min. Could be due to rank throughput limitations (no action on service) or to insufficient service. Action to be dependent on examination of rank operation.</td>
<td>60 No new licences to be issued at present.</td>
</tr>
<tr>
<td>12 Taxi passenger volume from 300 to 500/hr. Candidate for 35 Seater vehicles. (The range may differ for reverse route in other peak).</td>
<td>611 (FF &gt; 0.9) If rank is inadequate, reorganise or enlarge the rank, or relocate route start point. If insufficient service, up to 3 new licences may be issued, or more after demand surveys carried out.</td>
</tr>
<tr>
<td>13 Taxi passenger volume &gt;500/hr. Candidate for normal buses. (The range may be less for reverse direction in other peak).</td>
<td>612 (FF &lt; 0.9) If rank is inadequate, reorganise or enlarge the rank, or relocate route start point. If insufficient service, the association should be encouraged to use the fleet more efficiently.</td>
</tr>
<tr>
<td>15 Adequate or well utilised taxi route (50% to 99%), passenger volume 15 to 300/hr. No action needed.</td>
<td>62 Possible candidate for midibus size vehicles, if rank can accommodate them and if not in competition with north-south rail corridor. Otherwise no new licences.</td>
</tr>
<tr>
<td>16 Specific vias or Durban destination not distinguished in survey. Route probably shares in patronage noted for other vias or Durban destinations.</td>
<td>63 Possible standard bus route if not in competition with north-south rail corridor. If rank unsuitable for buses, relocate route start/end point. Otherwise no new licences.</td>
</tr>
<tr>
<td>15 Adequate or well utilised taxi route (50% to 99%), passenger volume 15 to 300/hr. No action needed.</td>
<td>65 No new licences to be issued at present.</td>
</tr>
<tr>
<td>16 Specific vias or Durban destination not distinguished in survey. Route probably shares in patronage noted for other vias or Durban destinations.</td>
<td>66 Check performance of equivalent route with survey data and apply recommendation for that route.</td>
</tr>
</tbody>
</table>
eThekwini Transport Authority
Route Detail Sheet - Illustrative Example
Route: XXYX

Route Description
- CPTR Route No: XXYX
- Route Name: Road A Taxi Rank to Parkside
- Origin name & GPS ID No: Road B Taxi Rank (E100)
- Destination Name & GPS ID No: Parkside (C200)
- Via Points: M1 (S)
- Route Length: 22.2km
- Mode: Mini-Bus Taxi
- Operator/Association: CCC T.A.
- Operator Route No: Commuter
- Route Type: Normal Route
- Inside Metro: Yes
- Definite: Yes

Service Capacity and Utilisation
- AM Peak: 17:16
- Off-Peak: 6
- PM Peak: 6
- Average Capacity: 15
- Average Utilisation: 90%
- Utilisation: 50%
- Utilisation %: 100%
- Fleet Factor: 1.25
- Spares Capacity: 0

Timetable Departure Times

Waiting Times

Route Utilisation

Comments
- 111: Fully utilised peak route (100% or more); moderate to high frequency (4 or more/hr); long wait >15 min. Could be due to rank throughout limitations (no action on service) or to insufficient service. Action to be considered on examination of rank operation. Compete with north-south rail service (may need feeder service).

Recommendations
- 611: (PF>0.9): Rank is inadequate, re-organise or enlarge the rank or relocate route start point. If insufficient service, up to 3 new licences may be issued, or more after demand surveys carried out.

Figure 9.5: Route Recommendation Sheet
9.10 Taxi Association Evaluation

Currently many taxi licence applications refer to an association and its routes rather than to one specific route. The aim should be to encourage operators to apply for a specific route licence, particularly when larger vehicles commence operation. However, this would reduce an association's flexibility of operation, particularly in situations where marshals are in radio contact and call for vehicles to cater for passenger demand.

For many years bus owners associations have pooled resources and shared routes. The list of approved routes accompanies the licence approval and is kept in the vehicle. This procedure may also work for taxis.

Of the 1064 taxi routes with survey data, 103 are possibly eligible routes for additional licences, depending on rank operation. In respect of larger vehicles, 144 routes have volumes appropriate for 35 Seaters and 15 for standard buses. In these categories it should be remembered that the routes in the database are uni-directional, therefore the above numbers of routes would be approximately halved in respect of two-way routes.

Appropriate hourly passenger volume ranges for buses and taxis and appropriate frequency/headway/waiting times have been set out in tables in Section 9.6.

In respect of taxi routes, 35 seater midibuses are appropriate when passenger volumes exceed 300/hr, which translates into a frequency of 9/hr or more. Above 500 passengers/hr standard buses are most appropriate but 35 seaters may still be the best choice depending on other routes of the association. With a frequency of 9/hr the likely waiting time is less than 4 minutes, which is short. At the same time, the headway of 7 minutes means the 35 seaters would not be getting in each others way.

Some of the principles that would be taken into consideration in the conversion process are described below.

The services operating within Durban CBD and Beachfront areas are high volume in both directions in both peaks. Taxis on these routes are numerous and clutter up the busy road network. These services should be among the first for consideration.
In respect of some associations, all their routes warrant conversion to 35 seaters and the conversion process would be expedited if these associations were to convert at an early stage.

The age of current taxis also needs to be considered. When taxis are replaced they should be replaced by 35 seaters for the designated routes irrespective of the priority order based on volume. This will be an on-going change which cannot be planned in advance.

Other constraints which should be taken into account relate to routes which are in competition with rail service in the North-South Coastal Corridor. When the Fundamental Restructuring of Public Transport is implemented, bus and taxi routes competing with rail should be discontinued or converted to feeder routes to the nearest rail station. At that time the most appropriate mode would be considered.

A further constraint relates to the physical limitations of existing taxi ranks in accommodating the 35 seaters, particularly in Durban CBD. In 2001 an investigation of taxi ranks throughout the Province was undertaken by the KwaZulu Natal Department of Transport to determine the extent of this problem and to recommend changes to ranks. In respect of roofed ranks in Durban CBD there were few which lent themselves to conversion. In some cases recommendations were made for relatively inexpensive alterations but the number of bays for 35 seaters was quite small. In the case of all routes which could be converted to 35 seaters and where either end is in a formal rank, site inspections will be necessary to determine the practicality of converting these routes to 35 seaters. It may be that in some cases the terminal point would need to be changed to a more suitable location for the larger vehicles.

Before implementation, the full service implications of converting to 35 seater vehicles needs to be investigated, including the likely impact on valley period level of service.
In total there are six operators with subsidised contract routes in the eThekwini municipal area. Of these three have tendered contracts (Combined Transport, Two Line Trading and Thokomala Transit) one has a negotiated contract (Remant Alton ex Durban Transport) and two have interim contracts (Maripine and South Coast). For survey and analysis purposes in the CPTR the Combined Transport services were split into North and West.

The performance of the contract operations excluding the interim contracts is summarised in Table 9.5 for the morning peak hour.

Table 9.5  Contracted Bus Operations (AM Peak Hour)

<table>
<thead>
<tr>
<th>Operator</th>
<th>Surveyed Routes</th>
<th>Vehicle Trips</th>
<th>Trips/Route</th>
<th>Service Cap</th>
<th>Pass. Volume</th>
<th>Utilisation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durban Transport</td>
<td>353</td>
<td>681</td>
<td>1.9</td>
<td>56504</td>
<td>43537</td>
<td>77</td>
</tr>
<tr>
<td>Combined Transport (N)</td>
<td>51</td>
<td>77</td>
<td>1.5</td>
<td>7210</td>
<td>5590</td>
<td>78</td>
</tr>
<tr>
<td>Combined Transport (W)</td>
<td>32</td>
<td>51</td>
<td>1.6</td>
<td>4300</td>
<td>2996</td>
<td>70</td>
</tr>
<tr>
<td>Two Line Trading</td>
<td>4</td>
<td>8</td>
<td>2.0</td>
<td>611</td>
<td>442</td>
<td>72</td>
</tr>
<tr>
<td>Thokomala Transit</td>
<td>16</td>
<td>27</td>
<td>1.7</td>
<td>2474</td>
<td>1670</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>456</td>
<td>844</td>
<td>1.85</td>
<td>71099</td>
<td>54235</td>
<td>76</td>
</tr>
<tr>
<td>Total all Bus Operators</td>
<td>697</td>
<td>1489</td>
<td>2.14</td>
<td>128056</td>
<td>94232</td>
<td>74</td>
</tr>
<tr>
<td>Contract as % of All</td>
<td>65</td>
<td>57</td>
<td>56</td>
<td>58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The contracts cover roughly two thirds of all bus services and their peak hour utilisation is slightly better than all services, utilisation of non-contract services being 70%. The utilisation rates of contract operators are reasonably similar, maximum variation being 10%. The number of peak hour trips per contracted route averages a low 1.85 which reflects a low frequency of service. For this reason, many routes would be better served by 35 Seaters and even 18 Seaters, to provide better frequency for passengers.
Table 9.6  Bus Routes by Operator with Particular Recommendations

<table>
<thead>
<tr>
<th>Operator</th>
<th>Suitable for</th>
<th>Need</th>
<th>Surveyed Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35 Seater</td>
<td>18 Seater</td>
<td></td>
</tr>
<tr>
<td>Durban Transport</td>
<td>252</td>
<td>190</td>
<td>20</td>
</tr>
<tr>
<td>Combined Transport (N)</td>
<td>32</td>
<td>42</td>
<td>3</td>
</tr>
<tr>
<td>Combined Transport (W)</td>
<td>26</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Two Line Trading</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Thokomala Transit</td>
<td>8</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>321</strong></td>
<td><strong>263</strong></td>
<td><strong>23</strong></td>
</tr>
<tr>
<td><strong>Total all Bus Operators</strong></td>
<td><strong>429</strong></td>
<td><strong>381</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

It is noteworthy that, to give a reasonable frequency, 46% of surveyed contracted routes would be better served with 35 Seater vehicles and 38% with 18 Seaters. Only 3% appear to need more buses to improve service capacity. These proportions for all bus services are only fractionally lower.

9.12 Rail Services

There are 8 basic rail routes, all radiating from Durban. There are 51 rail routes in the database with trains in either or both peak hours, but with different start or end points on the 8 basic routes. For example, the south coast line has services from Durban to Isipingo, Amanzimtoti, Umkomaas, Scottburgh, Park Rynie and Kelso, some in the morning peak, some in the afternoon peak and some in both peaks. Some services on the KwaMashu and north coast lines run via Redhill, the majority running via Effingham.

Grouped and simplified peak hour rail passenger totals are shown in Table 9.7. The largest number of peak hour passengers is 7000, from Umlazi to Durban in the morning peak. Even so, average utilisation on this route is only half of capacity. Only 3 other routes with more than one train have utilisations over 50%: Stanger and Cato Ridge to Durban in the morning peak, and Durban to Stanger in the afternoon peak. The one train from Umlazi to Wests in the morning peak is full. A larger train (1530 capacity) would be appropriate.
### Table 9.7 Peak Hour Rail System Utilisation

<table>
<thead>
<tr>
<th>Origin</th>
<th>Destination</th>
<th>No of Trains</th>
<th>Service Capacity</th>
<th>Pass. Util.</th>
<th>Util. Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a) Inbound: AM Peak Hour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Umlazi</td>
<td>Durban</td>
<td>9</td>
<td>13770</td>
<td>7000</td>
<td>51</td>
</tr>
<tr>
<td>KwaMashu</td>
<td>Durban</td>
<td>9</td>
<td>13770</td>
<td>4000</td>
<td>29</td>
</tr>
<tr>
<td>Stanger</td>
<td>Durban</td>
<td>3</td>
<td>3950</td>
<td>2800</td>
<td>71</td>
</tr>
<tr>
<td>Isipingo &amp; beyond</td>
<td>Durban</td>
<td>5</td>
<td>6050</td>
<td>2400</td>
<td>40</td>
</tr>
<tr>
<td>Cato Ridge</td>
<td>Durban</td>
<td>4</td>
<td>6120</td>
<td>3600</td>
<td>59</td>
</tr>
<tr>
<td>Pinetown</td>
<td>Durban</td>
<td>2</td>
<td>2420</td>
<td>400</td>
<td>17</td>
</tr>
<tr>
<td>Crossmoor</td>
<td>Durban</td>
<td>2</td>
<td>2420</td>
<td>500</td>
<td>21</td>
</tr>
<tr>
<td>Umlazi</td>
<td>Wests</td>
<td>1</td>
<td>1210</td>
<td>1200</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>35</td>
<td>49710</td>
<td>21900</td>
<td>44</td>
</tr>
<tr>
<td><strong>b) Outbound: PM Peak Hour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durban</td>
<td>Umlazi</td>
<td>7</td>
<td>10710</td>
<td>4300</td>
<td>40</td>
</tr>
<tr>
<td>Durban</td>
<td>KwaMashu</td>
<td>7</td>
<td>10710</td>
<td>2200</td>
<td>21</td>
</tr>
<tr>
<td>Durban</td>
<td>Stanger</td>
<td>4</td>
<td>5800</td>
<td>3200</td>
<td>55</td>
</tr>
<tr>
<td>Durban</td>
<td>Isipingo &amp; beyond</td>
<td>4</td>
<td>4840</td>
<td>1500</td>
<td>31</td>
</tr>
<tr>
<td>Durban</td>
<td>beyond</td>
<td>3</td>
<td>4590</td>
<td>2100</td>
<td>46</td>
</tr>
<tr>
<td>Durban</td>
<td>Cato Ridge</td>
<td>1</td>
<td>1210</td>
<td>200</td>
<td>17</td>
</tr>
<tr>
<td>Durban</td>
<td>Pinetown</td>
<td>1</td>
<td>1210</td>
<td>400</td>
<td>33</td>
</tr>
<tr>
<td>Wests</td>
<td>Crossmoor</td>
<td>2</td>
<td>2420</td>
<td>700</td>
<td>29</td>
</tr>
<tr>
<td>Umlazi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>29</td>
<td>41490</td>
<td>14600</td>
<td>35</td>
</tr>
</tbody>
</table>
10 IMPLEMENTATION STRATEGY

10.1 Introduction

This section of the Public Transport Plan provides input to the preparation of the prioritised implementation plan for the Integrated Transport Plan. The following public transport implementation strategy is documented within the context of the modal strategies and key aspects of the Public Transport Plan. In effect, it catalogues the recommended initiatives and projects forming part of the PTP, highlighting where appropriate key issues around the roll-out of the Plan in the short to medium term.

10.2 Unfolding of the Public Transport Strategy

The following figure gives a broad context to the roll-out of the long term restructured public transport system for the metropolitan area.

The timeframe for delivery of the restructured metropolitan-wide system depends on achieving various milestones in the development of each modal strategy. These milestones are identified in the following sections.
For the public transport plan to be properly integrated with the full range of land use development strategies, the development of such strategies should run concurrently. The Spatial Development Framework (SDF) which interprets the development strategies in geographic terms also provides the framework for the preparation of detailed local area spatial plans. As these plans are being developed, local area public transport plans can also be prepared and integrated as part of a parallel process.

10.3 Rail Strategy

Rail is planned as the backbone of the north-south public transport corridor system; however, the currently run-down, deteriorating rail system must be radically upgraded for this to be achieved.

Outside of this corridor the need to upgrade some rail services needs to be addressed as part of an implementation programme for the rail component of the public transport system.

The following are the five key strategies which comprise the Rail Strategy for the eThekwini Municipal area:-

Strategy 1: Rail Investment for the North-South Public Transport Coastal Corridor

➢ Finalise memorandum of agreement with SARCC for upgrading of rail rolling stock and other infrastructure.

Strategy 2: New Rail Spur Line to Bridge City

➢ Plan, design and award construction contract for new rail spur from Duff’s Road Station to Bridge City development

Strategy 3: Upgrade and Revitalisation of Chatsworth Rail Service

➢ Implement security systems, on board, at rail stations and at park ‘n ride locations

Strategy 4: Marketing of North-South Public Transport Corridor System

➢ Plan and implement marketing strategy including system branding, integrated with information systems.

Strategy 5: Kings Park Rail Station

➢ Design and construct in preparation for 2010 World Cup
10.4 Bus Strategy

In the proposed public transport system bus plays a support role in the north-south public transport corridor by providing some of the feeder-distribution systems. Currently, a number of bus services operate in direct competition with the rail service in the transport corridor and this is one of the problems that must be addressed in the implementation strategy for bus.

Beyond the north-south corridor, bus also plays a major role in an integrated system of bus and taxi services.

Strategy 1: Feeder-distribution services as integral part of the N-S public transport corridor system

- Formalisation of relevant minibus taxi services
- Develop and implement programme for introduction of feeder-distribution bus/taxi services including:
  - Durban CBD PT priority system
  - Berea system

Strategy 2: Remove/reposition bus services in direct competition with rail service in N-S public transport corridor

- Negotiate repositioning of non-contract services and rationalise contract services on completion of contracts

Strategy 3: Rationalise bus system and service contracts in areas removed from the N-S corridor

- Analyse existing bus/taxi system needs by local area
- Rationalise subsidised bus service contracts when each is renewed
- Identify opportunities/need for commercial service contracts
- Negotiate service changes with non-contract operators

Strategy 4: Improve infrastructure and operating conditions for existing bus services

- Implement short term (Years 1-5) programme for construction of shelters and laybys
- New bus rank at Mansfield
10.5 Minibus Taxi Strategy

The minibus taxi currently plays a major role in the metropolitan public transport system and will continue to do so into the future. In doing so however there will be a changing focus on the role of the taxi. Increasingly, the emphasis will be on quick turn-around routes where operators can operate more profitably. Feeder-distribution services in particular will benefit from the high frequency quick turn-around type of service that can be offered by the minibus taxi mode.

In the north-south public transport corridor minibus taxi will provide many of the feeder-distribution services. In the areas beyond the north-south corridor minibus taxi will play an important role in the integrated system of bus and taxi services. However, to become an effective part of the integrated systems the minibus taxi industry needs to become fully legalised and regulated. The following highlights the components of a minibus taxi implementation strategy to achieve these objectives.

Strategy 1: Develop the OLS for all road-based PT operations and implement service changes

- Evaluate OLS recommendations on route and service changes required in terms of over and under-supply of service
- Analyse cost implications for service rationalisation
- Negotiate and introduce service changes

Strategy 2: Regulate and control minibus taxi operations in the eThekwini Metropolitan area

- Provide route and service data to public transport law enforcement team and implement enforcement programme in terms of service agreement
- Implement a driver training programme for awareness and commitment to Quality Service Charter and Passenger Service Charter

Strategy 3: Feeder-distribution services as integral part of N-S public transport corridor system (Refer also to 10.4 - Strategy 1)

- Prepare a prioritised programme for introduction of feeder-distribution bus/taxi services
- Develop and implement a programme for allocating service contracts to existing operators, a) from over-traded areas, b) from parts of system impacted by restructuring in PTP
Strategy 4: Remove/reposition minibus taxi services in direct competition with rail service in N-S transport corridor

- Identify minibus taxi services in direct competition with rail and develop a programme for repositioning of services

Strategy 5: Rationalise minibus taxi routes and services in areas removed from the N-S Corridor

- Analyse existing bus/taxi system needs by local area
- Rationalise subsidised bus service contracts when each is renewed, identifying opportunities/needs for minibus taxi services
- Identify opportunities/need for commercial and/or subsidised minibus taxi service contracts and implement

Strategy 6: Improve infrastructure and operating conditions for existing minibus taxi services

- Implement the short term (Years 1-5) programme for construction of:-
  - taxi laybys and shelters
  - rural area ranks
  - urban area ranks and holding areas

10.6 Non-motorised Transport (NMT) Strategy

Non-motorised transport apart from walking includes bicycles and animal-drawn carts/wagons for carrying people from point-to-point. Although slower than motorised public transport these modes have the advantage of being personalised to the needs of individuals in terms of when the journey is made and the routing.

Animal-drawn transport needs to be largely restricted to rural parts of the metropolitan area however, cycling can be used in many parts of metro where topography permits. The focus of the current programme is on the cycling component of NMT.

Strategy 1: Develop and implement programme of cycle projects

- Develop cycle policy
- Possible cycle pilot project - Clermont
- Develop an implementation programme
10.7 Special Needs Public Transport Strategy

Special needs public transport passengers may include not only those with physical challenges, but children, the elderly, pregnant women, the illiterate and foreign tourists unable to communicate in any locally used language.

A range of initiatives will be introduced to meet these different needs. However as documented in the PTP policy - Section 3, the initial main focus will be on the development of the N-S public transport corridor as a universally accessible corridor, as this will impact on the greatest number of public transport passengers.

Strategy 1: Develop N-S PT Corridor as a universally accessible corridor

- Identify system needs in CBD and along N-S Corridor in terms of infrastructure, fleet and communication requirements (eg. Signage, auditory messaging, etc)
- Develop and implement a prioritised, phased implementation programme

Strategy 2: SUKUMA Project - Umlazi and KwaMashu

- Evaluate the SUKUMA project (2 retro-fitted buses on fixed routes in Umlazi and KwaMashu) and identify other locations where this or a similar type of service could be introduced
- Introduce service contracts in a phased programme for extending this service if funds are available

Strategy 3: Accessible Buses in New Bus Contracts

- Develop specification requirements for ‘accessible buses’
- Determine number of units and routing as part of the system design specification for preparing bus contract tenderers

Strategy 4: Driver Training Programme

- Introduce into bus driver training programmes a training module on acceptable and required procedures for embarking, disembarking and carrying of special needs passengers with different categories of mobility impairment.
10.8 Intermodalism Strategy

Intermodalism is an inherent aspect of the restructured, rationalised public transport system. In its broadest application in the N-S Corridor it includes rail, bus and minibus taxi.

The rail strategy for the N-S public transport corridor will include all modes forming a part of the corridor system solution. Further, the system solution will incorporate sub-systems essential to the effective performance of the overall system, including inter alia:-

- Through ticketing
- Security systems
- Information systems (Phase 1 - A Call Centre)

Apart from the N-S corridor, intermodalism will be incorporated into other parts of the metropolitan public transport system. These sub-systems will be developed and implemented as various parts of the overall public transport system are implemented.

Strategy 1: Public Transport Information System

- Develop the requirements (system architecture) for components of a comprehensive system for the metropolitan area
- Roll out a phased implementation programme including a PT Service Call Centre

Strategy 2: Through-ticketing System

- Develop system architecture
- Conduct a pilot

Strategy 3: Develop inter-modal system in N-S Corridor as part of Rail Strategy

Note - Refer to:-
10.3 Rail Strategy
10.4 Bus Strategy
10.5 Minibus Taxi Strategy

These collectively form a part of the inter-modal system strategy for the N-S public transport corridor.
Prepare and implement a prioritised roll-out programme for various rail, bus and taxi components of system incorporating integrated ticketing, information systems and security systems.

**10.9 TDM Strategy**

Whilst TDM projects have been identified for implementation in the short term programme, there is need to identify other projects as the various bus and taxi routes and services are restructured. Projects in this section address this need.

Strategy 1: Develop and implement TDM Programme

- Investigate full range of TDM measures and potential sites for implementation
- Implement TDM measures in CBD (including CBD public transport priority measures - 10.4 - Strategy 1) in short term programme

**10.10 Bus Subsidy Strategy**

For some of the subsidised bus services the benefit does not reach many of the poor. Consequently, there is a need to investigate ways in which the available subsidies can be focused on defined areas/services impacting on a larger segment of this sector of the commuter market.

Strategy 1: Targeted Subsidy Project

- Investigate the basis for and locations for introducing targeted subsidies and implement a pilot project

**10.11 Land Use Restructuring Strategy**

Section 3 sets out a number of public transport policies related to user-side subsidy, more efficient public transport, and land use policies in support of these principles.

Apart from the targeted subsidy project (10.10) there is need to introduce a pilot project on more efficient residential land use in support of public transport. In effect this will be achieved by subsidising land costs.
Strategy 1: **Subsidised Low Income Housing**

- Investigate location opportunities for low income housing which will be highly accessible to public transport and reduce the trip distance for essential travel.
- Recognising the reduced need for expenditure on essential services for such communities, consider various models for subsidising such development.
- Implement a pilot project.

### 10.12 Customer Focus Strategy

Apart from cost, the major concerns of public transport passengers, are for safe, reliable, convenient service. Two projects identified in Section 3 - Policy, focus on these aspects of public transport. They are the development and adoption of:-

- A Passenger Service Charter
- A Quality Service Charter

These provide the definition and terms of reference for the type of service passengers have requested in the Stated Preference Surveys conducted by the Municipality. They also provide the context for effective enforcement by the dedicated public transport enforcement team contracted to the ETA by the Metropolitan police services.

**Strategy 1:**  **Quality Service Charter**

- Engage operator forums and prepare the Charter
- Adopt and implement

**Strategy 2:**  **Passenger Service Charter (PSC)**

- Taking into consideration the national initiative to develop a PSC, engage local passenger/community forums and adapt the national charter as necessary
- Adopt and implement Charter

**Strategy 3:**  **See also Customer Call Centre 10.8 - Strategy 1**
10.13 Tourism Strategy

The public transport needs of tourists are recognised as quite different from those of daily commuters and residents. At the same time unique modes and/or service for tourists can add to the attractiveness of eThekwini as a tourist destination thereby having a positive impact on the local economy. The People Mover project described in the following section is such a project.

10.14 The People Mover Project

10.14.1 Objective of People Mover System

This project is planned as a tourist focused public transport system and service in the Durban CBD, connecting key activity centres in that area of the City.

The existing public transport system and services to the Durban CBD serve the needs of daily commuters and the introduction of a prioritised public transport CBD distribution system, will significantly enhance public transport services for commuters with CBD origins/destinations.

Whilst this system provides a measure of mobility in the CBD for tourists, it does not focus specifically on the needs of this group.

The concept of the People Mover System is to provide the alternative of an upmarket system and service with levels of convenience, comfort and security expected by tourists travelling in any first world city throughout the world. The objective then is to ensure tourists can reach various interest and activity destinations in the CBD using such a public transport system.

10.14.2 Phased Implementation

It is intended to develop and implement the People Mover System on a phased basis.

The capital and operating cost along with the complexity of implementing such systems preclude introducing such technology and levels of sophistication in the short term. Consequently, as an interim 3 year solution, a pilot system will be introduced based on the use of state-of-the-art midibus vehicles operating in mixed traffic along defined routes in the CBD.
Ten such vehicles with seated capacity of 35 will be used to provide this service. These vehicles will be fully air-conditioned, with a spacious seating configuration, and fully accessible for wheelchair passengers. CCTV camera surveillance on-board and at terminals will ensure a high level of personal security.

Drivers will be highly trained in areas of vehicle operation and in communicating with tourists thereby ensuring a safe and pleasant trip for the passengers.

The route system will comprise two routes; one along the beachfront, the other extending from a timed-transfer point of this route through the CBD as far as the Warwick Triangle. These routes will link together tourist accommodation and facilities along the beachfront, uShaka Marine World, the beachfront Casino, the ICC, and Central Shopping and accommodation.

The point of transfer from the beachfront to the east-west route will be a high-security, user convenient facility where through-ticketing and timed transfers will ensure minimum wait time.

This pilot people mover will be evaluated in terms of cost, utilisation and projected demand. If warranted, a more sophisticated system (eg. trams or monorail) will be proposed.

The People Mover System will also be integrated into the World Cup 2010 transport strategy.

10.14.3 Implementation Programme

Tenders have been received for the system vehicles which will be owned by eThekwini Municipality. The service will be operated under contract to the Municipality, and it is anticipated that a functional system will be operational before year end, 2005.
11 RURAL TRANSPORT STRATEGY

11.1 Introduction

Some 68% of eThekwini’s Municipal area can be considered as rural in nature. This means that a rural transport strategy for eThekwini is essential.

The ETA is busy preparing a rural transport strategy at present. This section will therefore highlight some of the existing issues that have been identified, and give an indication of the development of the full transport strategy.

11.2 Identification of Key Issues

General rural issues that need to form the background to a transport strategy are:-

- High unemployment
- Difficult terrain making transport difficult
- Lack of connectivity

The following transport issues have been identified and need to be addressed in a transport strategy:-

- Road improvements focused on accessibility
- Formalisation of public transport facilities to provide locations for trading and other services
- Extending public transport services to provide greater coverage
- Road safety, especially with regard to pedestrian movements and visibility
- Dealing with transport for the disabled
- Responsibility and provision for scholar transport, including issues of “bakkie transport”
- Non-motorised transport, including walking, cycling and animal drawn vehicles
- Levels of PT service that are appropriate for rural transport
11.3 Development of a Rural Transport Strategy

It is critical that the rural strategy be developed within the framework of the rural component of the NLTSF. There needs to be a focus on improved access to social services, education, markets and business support services. It is envisaged that it will be crucial to develop viable transportation services from villages to rural service centres. One of the critical pillars will need to encompass the management of transport infrastructure and services to support economic and social sector clusters. The notion of identifying a robust pilot project to test some of the ideas would be seriously considered.
Part of the IDP vision includes "...growing the economy and meeting peoples needs so that all citizens enjoy a high quality of life with equal opportunities..."

Public transport’s contribution to achieving this vision requires performance on the delivery of the PTP, as well as performance of the system in achieving the various public transport goals. Consequently, performance monitoring using various key performance indicators (KPI's) is an essential part of the delivery of the PTP.

### 12.1 Key Performance Indicators (KPI's)

Table 12.1 sets out a range of KPI's for the five public transport goals identified in Section 3 of this report.

Apart from defining each goal this table notes the probable source of data needed to measure performance and the recommended frequency of measurement.

<table>
<thead>
<tr>
<th>Goal 1 – Effective Public Transport:</th>
<th>Key Performance Indicator</th>
<th>KPI No</th>
<th>Description</th>
<th>Source</th>
<th>Comments</th>
<th>Report Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Passenger satisfaction with public transport service</td>
<td>1</td>
<td>No of complaints/1000 passengers per month</td>
<td>• Monitored in Remant Alton contract</td>
<td>• Needs call centre (Note: Section 10.8)</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>➢ Promotion of use of public transport</td>
<td>2</td>
<td>Modal split (% of motorised transport users on public transport in peak period)</td>
<td>• ETA</td>
<td>• Part of annual monitoring programme</td>
<td>Every 3-5 years</td>
<td></td>
</tr>
<tr>
<td>➢ Promotion of access to public transport</td>
<td>3</td>
<td>Average age of subsidised bus and commuter rail coach fleet</td>
<td>• KZNDOT and SARCC</td>
<td>• KZNDOT (becomes ETA responsibility as bus contracts are taken over)</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>➢ Promotion of accessibility to public transport</td>
<td>4</td>
<td>Kilometers of roads used for PT per hectare in rural areas</td>
<td>• ETA</td>
<td>-</td>
<td>Every 2-3 years</td>
<td></td>
</tr>
<tr>
<td>➢ Accommodation of Special Needs Groups</td>
<td>5</td>
<td>% of households spending more than 10% of disposable income on public transport</td>
<td>• Quality of life survey</td>
<td>-</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>➢ No of corridors with fully accessible P.T.</td>
<td>6</td>
<td>• No of dedicated vehicles for special needs</td>
<td>• ETA/KZNDOT</td>
<td>-</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>Output to Be Evaluated</td>
<td>KPI No</td>
<td>Description</td>
<td>Source</td>
<td>Comments</td>
<td>Report Frequency</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>---------------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>% of contracted bus fleets fully accessible in select areas still to be determined</td>
<td>KZNDOT</td>
<td>-</td>
<td>Annual</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Goal 2 – Efficient Public Transport:**

- Efficient PT operations
  - **8** Average travel time to work for all public transport commuters
    - **Source:** Quality of life survey
    - **Comments:** -
    - **Report Frequency:** Annual

- Efficient bus operation
  - **9** Average no of passengers carried per subsidised bus per day
    - **Source:** KZNDOT
    - **Comments:** -
    - **Report Frequency:** Annual

- Efficient rail service
  - **10** Average number of rail passengers per service per day
    - **Source:** Metrorail
    - **Comments:** Currently Metrorail function. Info available only when provided
    - **Report Frequency:** 2-3 years

- Taxi-Recapitalisation progress
  - **11** % of minibus taxi fleet re-capitalised
    - **Source:** OLB
    - **Comments:** Only possible when Re-cap programme operational
    - **Report Frequency:** Annual

- Good delivery of public transport projects
  - **12** % of capital projects delivered within time and budget
    - **Source:** ETA
    - **Comments:** -
    - **Report Frequency:** Annual

- Effective regulation and control of public transport vehicles
  - **13** % fully legal public transport operators
    - **Source:** OLB
    - **Comments:** Measurable once provincial taxi database is fully updated
    - **Report Frequency:** Annual

**Goal 3 – Sustainable Public Transport**

- Road-based public transport service regulation and legislation
  - **14** % of services operating with a fixed route permit
    - **Source:** OLB
    - **Comments:** Currently an OLB function; available only when Board provides
    - **Report Frequency:** Annual

- Land-use restructuring (for monitoring)
  - **15** Development density along PT priority corridor(s)
    - **Source:** -
    - **Comments:** Exact measures to be developed
    - **Report Frequency:** 5 years

**Goal 4 – Safe & Secure Public Transport:**

- Improved public transport security
  - **16** Reported incidents monthly per 10 000 passengers
    - **Source:** SAPS
    - **Comments:** Access procedures need to be set up
    - **Report Frequency:** Annual

- Improved public transport safety
  - **17** Various KPI's from Road Safety Plan
    - **Source:** ETA
    - **Comments:** Documented in Road Safety Plan & ITP
    - **Report Frequency:** Annual

**Goal 5 – Black Empowerment in Public Transport:**

- Extent of ownership and participation in public transport and related activities
  - **18** Number of contracts and value by type of contract
    - **Source:** ETA
    - **Comments:** -
    - **Report Frequency:** Annual

- Procurement of services
  - **19** % of budgets allocated to PDI firms
    - **Source:** ETA
    - **Comments:** -
    - **Report Frequency:** Annual
ANNEXURE A

Public Transport Service
and
Trip Characteristics

A.1 Service and Trip Characteristics - Transport Supply from Route Origin Zone (Year 2000 AM Peak Hour)  
A.2 Service and Trip Characteristics - Levels of Service by Origin Zone (Year 2000 AM Peak Hour)  
A.3 Service and Trip Characteristics - Demand by Route Group from Origin Zone (Year 2000 Peak Hour)  
A.4 Service and Trip Characteristics - Annual Service Kilometres (Year 2000)  
A.5 Service and Trip Characteristics - Service Utilisation by Route Group from Origin Zones (Year 2000 AM Peak Hour)
### Table A.1: eThekwini Public Transport Plan

#### Service and Trip Characteristic

Transport Supply from Route Origin Zones (Year 2000 AM Peak Hour)

<table>
<thead>
<tr>
<th>Origin Zone</th>
<th>No of Routes (Transit Lines)</th>
<th>Vehicle Trips</th>
<th>Average Trip Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Rail</td>
<td>Taxi</td>
</tr>
<tr>
<td>CBD</td>
<td>23,840</td>
<td>165</td>
<td>6</td>
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<td>Berea</td>
<td>1,788</td>
<td>21</td>
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<tr>
<td>Sydenham</td>
<td>2,349</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>Cato Manor</td>
<td>4,406</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>Congella</td>
<td>1,063</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Clairewood</td>
<td>91</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Merewent</td>
<td>3,919</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td>Jacobs</td>
<td>377</td>
<td>6</td>
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</tr>
<tr>
<td>Prospecton</td>
<td>786</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Isipingo</td>
<td>4,423</td>
<td>12</td>
<td>-</td>
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<tr>
<td>Folweni</td>
<td>4,242</td>
<td>15</td>
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<td>Umlazi</td>
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<td>316</td>
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<tr>
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<td>Effingham</td>
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<tr>
<td>Tongaat</td>
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<tr>
<td>Other</td>
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<td><strong>Totals</strong></td>
<td>197,138</td>
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<tr>
<td><strong>Averages</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Origin Zone</td>
<td>No of passenger OD trips</td>
<td>Average connection times</td>
<td>Average in-vehicle times</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------</td>
<td>--------------------------</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Walk minutes</td>
<td>Total wait minutes</td>
</tr>
<tr>
<td>1 CBD</td>
<td>9,616</td>
<td>9.3</td>
<td>3.9</td>
</tr>
<tr>
<td>2 Berea</td>
<td>1,710</td>
<td>10.6</td>
<td>4.1</td>
</tr>
<tr>
<td>3 Sydenham</td>
<td>2,623</td>
<td>10.8</td>
<td>2.7</td>
</tr>
<tr>
<td>4 Cato Manor</td>
<td>4,646</td>
<td>11.0</td>
<td>4.4</td>
</tr>
<tr>
<td>5 Congella</td>
<td>2,967</td>
<td>13.4</td>
<td>4.2</td>
</tr>
<tr>
<td>6 Clairewood</td>
<td>933</td>
<td>10.1</td>
<td>6.3</td>
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<tr>
<td>7 Merewent</td>
<td>3,546</td>
<td>7.8</td>
<td>4.2</td>
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<tr>
<td>8 Jacobs</td>
<td>1,955</td>
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<tr>
<td>9 Prospecton</td>
<td>3,897</td>
<td>10.3</td>
<td>3.2</td>
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<tr>
<td>10 Isipingo</td>
<td>5,717</td>
<td>9.4</td>
<td>6.1</td>
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<tr>
<td>11 Folweni</td>
<td>3,577</td>
<td>19.1</td>
<td>4.9</td>
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<tr>
<td>12 Umlazi</td>
<td>29,993</td>
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<tr>
<td>13 Chatsworth</td>
<td>7,807</td>
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<td>4.7</td>
</tr>
<tr>
<td>14 Pinetown South</td>
<td>8,217</td>
<td>14.1</td>
<td>4.9</td>
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<tr>
<td>15 Pinetown</td>
<td>2,170</td>
<td>19.1</td>
<td>4.7</td>
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<td>16 Mpumalanga</td>
<td>5,107</td>
<td>21.4</td>
<td>5.6</td>
</tr>
<tr>
<td>17 New Germany</td>
<td>81</td>
<td>21.1</td>
<td>5.9</td>
</tr>
<tr>
<td>18 Clermont</td>
<td>6,019</td>
<td>11.8</td>
<td>4.2</td>
</tr>
<tr>
<td>19 Effingham</td>
<td>1,291</td>
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<td>20 Newlands</td>
<td>4,121</td>
<td>9.1</td>
<td>4.1</td>
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<td>21 KwaMashu</td>
<td>15,380</td>
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<td>4.6</td>
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<td>22 Ntuzuma</td>
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<td>3.6</td>
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<td>23 Inanda</td>
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<td>3.7</td>
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<td>24 Phoenix</td>
<td>12,585</td>
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<td>3.4</td>
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<td>25 Verulam</td>
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<td>26 Tongaat</td>
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<td>12.7</td>
<td>4.6</td>
<td>3.9</td>
</tr>
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</table>
### Table A.2 (continued):
#### eThekwini Public Transport Plan

<table>
<thead>
<tr>
<th>Origin Zone</th>
<th>No of passenger OD trips</th>
<th>Passenger kilometres</th>
<th>Passenger Rides</th>
<th>Average fares paid per ride</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total x1000</td>
<td>Rail x1000</td>
<td>Taxi x1000</td>
</tr>
<tr>
<td>CBD</td>
<td>9,616</td>
<td>130.51</td>
<td>62.28</td>
<td>33.91</td>
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### Table A.3: eThekwini Public Transport Plan

**Service and Trip Characteristics**

**Demand by Route Group From Origin Zone – (Year 2000 Peak Hour)**

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<tr>
<th>Route Origin</th>
<th>Total Passenger Rides</th>
<th>Passenger rides by vehicle type</th>
<th>Passenger-km by vehicle type</th>
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</tr>
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<td>417</td>
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<tr>
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<td>-</td>
<td>-</td>
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Table A.4: eThekwini Public Transport Plan
Service and Trip Characteristics
Annual Service Kilometres (Year 2000)

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<th>Mynah million km</th>
<th>Std Bus million km</th>
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### Table A.5: eThekwini Public Transport Plan
Service and Trip Characteristics
Service Utilisation by Route Group from Origin Zones (Year 2000 AM Peak Hour)

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<th>Mynah</th>
<th>Std Bus</th>
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</tr>
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<td>0.73</td>
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<td>0.32</td>
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<td>0.23</td>
</tr>
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</table>
Enforcement Service Agreement

B.1 Application Procedure and forms for Rank Permit

B.2 Section 12 – Traffic Bylaws for Metered Taxi’s
ANNEXURE ‘B’:

B.1 MINI BUS AND METERED TAXI RANK PERMITS AND HOLDING SPACE ALLOCATION.

1. Minibus Taxi Rank Permit – Submission of Application

Where an operating licence has been approved subject to the operator obtaining a rank permit, the procedure set out below must be followed:

a) The applicant must submit the following documentation with an application form obtained from the Metro police:

- Original ID document
- Certified copy of ID document
- Original Certificate of Fitness
- Certified copy of Certificate of Fitness
- Original of OLB permit/licence
- Certified copy of OLB permit/licence

Note: The application must be signed and stamped by the taxi association Chairman with a DB number

b) Metro Police check with NATIS to ensure the Association is registered.

c) The operator must agree to the following conditions.

(i) Number of taxi’s per destination must be restricted to the number of taxis that can be accommodated within marked bays in the rank.

(ii) No washing of vehicles is allowed to take place other than in dedicated washbays.

(iii) Excess vehicles may not hold/park in or near the rank.

(iv) Vehicles must be driven slowly in ranks with due regard to the safety of pedestrians.

(v) No hooting or loud music is permitted at or near ranks.

Note: Other conditions may be added from time to time.

2. Issuing of Minibus Taxi Rank Permit

The rank permit will be issued on approval of the above documentation and checks. Currently no check is made on availability of loading space at ranks; however, in future availability of ranking space will form part of the approval process.

3. Minibus Taxi Holding Space

Currently no check is made on the availability of holding space for a minibus operator applying for a rank permit.
In future this check will be carried out as part of the process and it will be a requirement of the conditions of approval of a rank permit that a suitable holding space can be allocated to the applicant.

4. **Metered Taxi Rank Permit – Submission of Application**

The applicant must submit the following documentation :-

- Original ID document
- Certified copy of ID document
- Original Certificate of Fitness
- Certified copy of Certificate of Fitness
- Original of OLB permit/licence
- Certified copy of OLB permit/licence

5. **Priority in Issuing of Metered Taxi Rank Permits**

In issuing of metered taxi rank permits first preference will be given to operators who currently hold a valid operating permit but have no rank permit. Amongst these operators priority will be based on those who have operated the longest.

6. **Rank Permit Conditions – Section 12**

A Section 12 (Rank Permit Conditions) must be attached to the operating licence.

---

**B2 CITY OF DURBAN : ROAD TRAFFIC BY – LAWS**

**SECTION 12 TRAFFIC BYLAWS FOR METERED TAXIS**

1. Every taxi plying for hire in the City shall be fitted with a taximeter in compliance with this By-law.

2. The taximeter shall be fitted to the taxi in such a position that the dial shall be plainly visible to any passenger in the rear seat of the taxi, and at night time the dial shall be illuminated so as to be so visible.

3. The dial of a taximeter fitted to a taxi shall at all times be kept free of all forms of obstruction.

4. After a taxi has been fitted with a taximeter it shall be submitted to the Chief Constable, who, if he is satisfied that the requirements of this By-law have been complied with and the taximeter is in good and correct working order, shall fix his official seal to the taximeter.
(5) Every taximeter shall be maintained in good working order, with the seal intact.

(6) Whenever a taximeter requires repair or re-adjustment, it shall be submitted to the Chief Constable, who shall destroy and remove the seal therefrom. After the taximeter has been repaired or re-adjusted, or whenever the seal upon any taximeter has been inadvertently broken or damaged, the Chief Constable, upon application, on being satisfied that such taximeter is in good an correct working order, shall affix a fresh seal thereto.

(7) a – The driver of any taxi, fitted with a taximeter, which has been hired shall, as soon as he has been hired, and not sooner, set the taximeter in motion and shall stop it immediately upon the termination of such hiring.

b – Immediately upon the occurrence of any stoppage of any taxi, except a stoppage caused by traffic congestion or a stoppage in obedience to a direction by a passenger, the driver shall stop the taximeter, indicate such stoppage on the taximeter, and shall not re-start the taximeter until such stoppage has ended.

(8) The driver of a taxi shall at all times have available in the taxi a copy of this By-law and shall produce the same for inspection by any passenger or police officer at any time upon demand.

(9) It shall be an offence for any person :-

a – to destroy, break or tamper with the seal upon any taximeter, unless it is proved that such destruction or breaking was not wilful;

b – to adjust, tamper or interfere with any taximeter or any fitting thereof so as to cause the taximeter to register a fare other than the correct fare authorised and chargeable by law.

(10) The driver of any taxi (except a taxi registered under the laws governing the registration of motor vehicles at some place outside the City of Durban which is plying for hire from a point outside the City to a point within it or vica-versa) shall be guilty of an offence who within the City :-

a – plies for hire with a taxi which is not fitted with a taximeter in good working order with the Chief Constable’s seal intact;

b – plies for hire with a taxi which is fitted with a taximeter, duly sealed, but is fitted with tyres of a size different from those specified for use with such taximeter.
c – plies for hire with a taxi which is fitted with a taximeter, duly sealed, but whose tyres are inflated to a lower pressure than the pressure prescribed therefore, unless it is proved that such lower pressure has not been wilfully caused;

d – contravene Sub-section (7) or (8) of this By-law.

(11) No person travelling in a taxi shall, without lawful cause, fail or refuse to pay the legal fare therefor as recorded on the taximeter.

(12) The driver of a taxi, when engaged, shall drive to his destination by the shortest route, unless otherwise directed by the hirer.
ANNEXURE C

Service Level Agreement
for
Public Transport Law Enforcement
SERVICE LEVEL AGREEMENT

FOR

PUBLIC TRANSPORT LAW ENFORCEMENT

IN THE

ETHEKWINI TRANSPORT AUTHORITY AREA

ENTERED BETWEEN

THE ETHEKWINI TRANSPORT AUTHORITY

AND

THE ETHEKWINI METROPOLITAN POLICE SERVICE

May 2003
## INDEX

<table>
<thead>
<tr>
<th>Clause</th>
<th>Subject Matter</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Parties to the Agreement</td>
<td>C.1</td>
</tr>
<tr>
<td>2.</td>
<td>Scope of the Agreement and Jurisdiction</td>
<td>C.1</td>
</tr>
<tr>
<td>3.</td>
<td>Specific Functions Required to be Performed</td>
<td>C.2</td>
</tr>
<tr>
<td>4.</td>
<td>Coverage Requirements and Performance Measurement</td>
<td>C.2</td>
</tr>
<tr>
<td>5.</td>
<td>Service Commencement</td>
<td>C.3</td>
</tr>
<tr>
<td>6.</td>
<td>Duration of Agreement</td>
<td>C.3</td>
</tr>
<tr>
<td>7.</td>
<td>Resourcing and Training</td>
<td>C.3</td>
</tr>
<tr>
<td>8.</td>
<td>Reimbursement for Services Rendered</td>
<td>C.4</td>
</tr>
<tr>
<td>9.</td>
<td>Management of the Contract and Taking of Instructions</td>
<td>C.4</td>
</tr>
<tr>
<td>10.</td>
<td>Right of Inspection and Investigation</td>
<td>C.5</td>
</tr>
<tr>
<td>11.</td>
<td>Powers of Authorised Officers and Impartiality</td>
<td>C.5</td>
</tr>
<tr>
<td>12.</td>
<td>Impoundment</td>
<td>C.6</td>
</tr>
<tr>
<td>13.</td>
<td>Required Conduct and Indemnification</td>
<td>C.6</td>
</tr>
<tr>
<td>14.</td>
<td>Cession, Delegation and Assignment</td>
<td>C.7</td>
</tr>
<tr>
<td>15.</td>
<td>Breach and Non Performance</td>
<td>C.7</td>
</tr>
<tr>
<td>16.</td>
<td>Disputes</td>
<td>C.8</td>
</tr>
<tr>
<td>17.</td>
<td>Totality of the Agreement and Amendments</td>
<td>C.8</td>
</tr>
<tr>
<td>18.</td>
<td>Signatories to the Agreement</td>
<td>C.8</td>
</tr>
</tbody>
</table>

**Addendum:** Service Specification C.9-10
SERVICE LEVEL AGREEMENT FOR PUBLIC LAW ENFORCEMENT

1. PARTIES TO THE AGREEMENT

The parties to this Agreement are as follows:

1.1 The eThekwini Transport Authority (hereinafter referred to as the “Client”) and

1.2 The eThekwini Metropolitan Police Service (hereinafter referred to as the “Enforcement Agent”) with whom the Client concludes this service level agreement.

2. SCOPE OF THE AGREEMENT AND JURISDICTION

The Agreement governs the provision of the following services:

2.1 public transport law enforcement as envisaged in Part 18 of the National Land Transport Transition Act, 2000 (Act No. 22 of 2000) (hereinafter referred to as the NLTTA), Part XII of the KwaZulu-Natal Interim Minibus Taxi Act, 1998 (Act No. 4 of 1998) (hereinafter referred to as the IMTA) and Sections 31 to 34 of the Road Transportation Act, 1977 (Act No. 74 of 1977) (hereinafter referred to as the RTA).

In terms of this Agreement the Client appoints the Enforcement Agent to regulate market entry by operators who provide public transport services within the area of jurisdiction of the Client (hereinafter referred to as the “designated transport area”).

2.2 monitoring and regulating the conduct of operators and drivers of public transport services to ensure compliance with the Operational Code of Conduct for Operators of Public Transport Services and Drivers of Public Transport Vehicles (hereinafter referred to as the “Public Transport Operational Code”), prescribed by the MEC for Transport in KwaZulu-Natal in Provincial Gazette No. 6020 dated 23 April 2001 (Provincial Notice No. 149, 2001).

2.3 enforcement of all municipal by-laws associated with the operation of public transport services, including the regulation of access to and use of transport facilities such as ranks, termini, holding areas, bus stops and lay byes.

2.4 enforcement of quality control and safety aspects associated with the operation of public transport vehicles, as provided for in the National Road
Traffic Act, 1996 (Act No. 93 of 1996) (as amended) and relevant regulations.

3. **SPECIFIC FUNCTIONS REQUIRED TO BE PERFORMED**

More specifically the Enforcement Agent shall be required to perform the following functions on behalf of the Client:

3.1 Enforcement of operating licences and public road carrier permits necessary for authorised operation of public transport services within the designated area;

3.2 Enforcement of rank permits;

3.3 Enforcement of public transport operations from a Road Traffic Act perspective;

3.4 Monitoring for operator and driver compliance with the “Public Transport Operational Code”;

3.5 Impoundment of vehicles of public transport operators found to be operating illegally;

3.6 Provision of security at vehicle pounds to safeguard impounded vehicles;

3.7 Implementation of administrative procedures to ensure accountability for the receipt and subsequent release of impounded vehicles;

3.8 Submission of regular reports containing detailed statistics to substantiate the frequency of checking and the extent of enforcement coverage undertaken; and

3.9 Submission of regular progress reports covering all contractual obligations covered by this Agreement.

4. **COVERAGE REQUIREMENTS AND PERFORMANCE MEASUREMENT**

4.1 The Enforcement Agent shall be required to provide for the checking of operating licences, public road carrier permits and rank permits within the designated transport area in such a manner as will guarantee that the following broad requirements prescribed by the Client are met:

4.1.1 Systematic coverage of all public transport routes, corridors or areas on a programmed basis;
4.1.2 Monitoring on weekdays, weekends and public holidays, as well as during peak and off-peak periods;
4.1.3 Comprehensive monitoring of each individual route at least every second month; and
4.1.4 An element of ad hoc random checking.

4.2 The Client shall provide the Enforcement Agent with a detailed service specification clearly setting out the level of enforcement coverage required in terms of this Agreement. The detailed service specification shall be laid down in an addendum to this Agreement signed by both parties.

4.3 The basis for performance measurement shall be agreed between the parties at the inception of this Agreement. Thereafter, any changes shall be committed to writing and agreed between the parties.

4.4 The written approval of the Client shall be obtained before the level of monitoring may be changed by the Enforcement Agent.

5. SERVICE COMMENCEMENT

The enforcement services required to be performed shall commence on …………………………… or such later date as may be agreed between the parties.

6. DURATION OF AGREEMENT

6.1 This Agreement shall be valid for an initial period of …… years.

6.2 Thereafter the Client may renew the contract annually on terms and conditions to be renegotiated.

6.3 Should the client, at any stage, decide to terminate the contract the Enforcement Agent may at the Client’s discretion be called upon to continue rendering the contracted services on the same terms and conditions as will be applicable at that time, for an additional period not to exceed (3) months.

7. RESOURCING AND TRAINING

7.1 The Enforcement Agent shall be required to deploy a dedicated Public Transport Enforcement Squad (hereinafter referred to as the “PTES”) to provide the public transport law enforcement services specified in this Agreement.
7.2 At the onset of this Agreement, the PTES shall comprise of thirty (30) enforcers. The initial deployment of enforcement officers by rank shall be as follows:

- one (1) Superintendent (Divisional Commander) to head up the PTES
- two (2) Inspectors
- four (4) Sergeants
- twenty-three (23) Constables

7.3 The complement of enforcers shall be reviewed annually in the light of Client requirements affecting levels of coverage, frequency of checking or any other changes required to satisfy Client needs. Amended service specifications arising out of this annual review shall be agreed between the Enforcement Agent and the Client in sufficient time to enable implementation of any changes to coincide with the start of the municipal financial year.

7.4 The training of members of the PTES on the specialised enforcement activities required to be performed in terms of this Agreement shall be the responsibility of the Enforcement Agent. In this regard, the Enforcement Agent shall ensure that members of the PTES are fully conversant with all legislation relevant to the enforcement services required to be performed in terms of this Agreement.

8. REIMBURSEMENT FOR SERVICES RENDERED

8.1 The budgetary requirement necessary for delivery of the services covered by this Agreement shall be agreed to and confirmed in writing at the inception of the Agreement and annually thereafter to coincide with the start of the municipal financial year.

8.2 The administrative arrangements pertaining to the method and frequency of reimbursement of the Enforcement Agent for services rendered shall be agreed between the parties at the inception of this Agreement.

9. MANAGEMENT OF THE CONTRACT AND TAKING OF INSTRUCTIONS

9.1 Compliance with the terms of this Agreement will be monitored by a Steering Committee consisting of representatives from both parties. A representative of the Client shall chair the Steering Committee meetings. The Client shall provide secretarial support at such meetings.
9.2 The Steering Committee shall meet on a monthly basis. The Enforcement Agent shall as a matter of course table a report containing a description of the work done, the utilization of human resources and details of the incidental expenses incurred during the period under review.

9.3 In the discharge of its obligations under this Agreement the Enforcement Agent shall be required to take instructions from designated officials of the Client. The names of such officials shall be communicated by the Client to the Enforcement Agent at the onset of this Agreement.

9.4 The Client through its designated officials shall, at any time, be entitled to instruct the Enforcement Agent to alter the planned activities of the PTES in order to respond to specific Client needs or emergencies dictating that the activities of the PTES be concentrated on a particular route, area or hotspot identified by the Client as requiring priority or urgent attention.

10. **RIGHT OF INSPECTION AND INVESTIGATION**

10.1 The Client shall, without prior notification, have the right at any time to undertake inspections of the activities of the PTES. Such inspections will in no way exempt the Enforcement Agent from any of its duties and obligations.

10.2 The Client and any person authorised by the Client shall, at all reasonable times, have access to all premises, offices, vehicles and equipment utilised by the Enforcement Agent in the provision of the services covered by this Agreement, including vehicle pounds and impounded vehicles under the control of the Enforcement Agent. The Enforcement Agent shall render the Client every assistance in terms of obtaining such access or the right thereto.

10.3 The Client shall have the right, at any time, to investigate any complaints, objections or representations made by operators, drivers, passengers or other interested persons or institutions relating to the services provided in terms of this Agreement.

11. **POWERS OF AUTHORISED OFFICERS AND IMPARTIALITY**

11.1 The Enforcement Agent shall be responsible for ensuring that enforcers deployed in terms of this Agreement are, at all times, empowered in line with the legal requirements of an “authorised officer” referred to in Section 1 (1) (ii) of the NLTTA, Section 1 of the IMTA and Section 1 of the RTA. In addition, thereto, the Enforcement Agent shall ensure that members of the PTES are fully conversant with all legislation governing the aspects of enforcement required to be undertaken in terms of this Agreement.
11.2 The Enforcement Agent shall be expected to conduct the enforcement function envisaged in this Agreement in a fair and impartial manner, thereby ensuring equality of treatment for all operators of public transport, regardless of the particular mode that they may operate.

11.3 Notwithstanding that, under the terms of this Agreement, the duties and responsibilities of members of the PTES refer to specialised activities associated with public transport law enforcement, the Client gives consent for members of the PTES in parallel with contracted duties to deal with all other forms of enforcement normally associated with the positions of enforcer which they hold as members of the Enforcement Agent, on the understanding that the focus of their attention shall not unduly shift from the specialised enforcement functions required to be performed in terms of this Agreement.

12. IMPOUNDMENT

12.1 The Enforcement Agent shall be required to establish vehicle pounds for use in the storage of impounded vehicles. In addition the Enforcement Agent shall be required to provide the necessary security and manpower at vehicle pounds.

12.2 The Enforcement Agent shall be responsible for the safekeeping of impounded vehicles whether such vehicles are in transit following impoundment or in storage at a vehicle pound. To this end the Enforcement Agent shall be required to develop detailed impoundment procedures for approval by the Client.

12.3 For purposes of ensuring accountability for impounded vehicles the Enforcement Agent shall be required to utilize the prescribed Impoundment Control Form enclosed as Appendix “A” to this Agreement. This form shall be made up in triplicate. The original shall be kept by the Enforcement Agent. The first copy shall be handed to the driver of the vehicle and the second copy shall be submitted to the Client once the vehicle has been collected from the pound.

13. REQUIRED CONDUCT AND INDEMNIFICATION

13.1 The Enforcement Agent shall exercise the highest degree of professionalism, care and diligence in the provision of the services and shall provide the services to the satisfaction of the Client, in strict accordance with the terms of this Agreement.
13.2 Should the Enforcement Agent become aware of any circumstances or problems preventing it from discharging its obligations under this Agreement, it shall immediately advise the Client and also indicate the extent to which the provision of the services will be affected thereby. Such advice must be confirmed in writing as soon as reasonably possible.

13.3 The Enforcement Agent shall indemnify the Client against any claims that may arise as a consequence of any of the following circumstances:

13.3.1 The use of enforcers as members of the PTES who do not comply with the definition of an authorised officer as set out in Section 1 (1) (ii) of the NLTTA, Section 1 of the IMTA and Section 1 of the RTA;
13.3.2 Damage to impounded vehicles or the release of vehicles to persons other than registered owners;
13.3.3 Gross negligence on the part of members of the PTES whilst carrying out the functions set out in this Agreement; and
13.3.4 Gross negligence on the part of any other officials of the Enforcement Agent who may directly or indirectly be involved in activities related to this Agreement.

14. CESSION, DELEGATION AND ASSIGNMENT

The Enforcement Agent shall not cede its rights or delegate its obligations under the Agreement or any part thereof, or assign or transfer any benefit, interest or obligation connected with this Agreement to another entity without the prior written consent of the Client.

15. BREACH AND NON PERFORMANCE

15.1 Where any party finds the other to be in breach of this Agreement notification of such breach shall, in the first instance, be reported in writing by the aggrieved party at the next meeting of the Steering Committee referred to in Clause 9.1.

15.2 The report referred to in Clause 15.1 shall specify the period within which the aggrieved party expects the breach to be rectified.

15.3 The aggrieved party shall give the party in breach of this Agreement a reasonable time to remedy the situation having regard for the nature of the breach and the period reasonably required to remedy such breach, provided that such period shall not exceed thirty (30) days. Should the breach not be remedied within the stipulated period to the satisfaction of the aggrieved party, a formal dispute may be declared in terms of Clause 16.
15.4 Where it is apparent that the functions entrusted to the Enforcement Agent as referred to in Clause 3 of this Agreement are not being satisfactorily performed, the Client shall raise the matter for discussion at the next meeting of the Steering Committee. Should the problem not be resolved to the satisfaction of the Client, a formal dispute may then be declared in terms of Clause 16.

16. DISPUTES

16.1 In the event of unresolved disputes arising between the parties, the matter in dispute shall be referred to the Head of the eThekwini Transport Authority and the Head of the eThekwini Metropolitan Police Service for consideration.

16.2 Should the step outlined in Clause 16.1 above fail to settle the dispute, the matter shall then be jointly referred by the parties to the City Manager for decision on whether to rule thereon or have the dispute reported to Council for a final ruling.

16.3 Where the City Manager elects to rule on a dispute the parties shall be bound to accept such ruling as final.

17. TOTALITY OF THE AGREEMENT AND AMENDMENTS

This Agreement inclusive of any appendices and addenda contains the full contract between the parties. No amendment to or cancellation of this Agreement shall be valid unless reduced to writing and signed by both parties.

18. SIGNATORIES TO THE AGREEMENT

Signed at ........................................ on this ............... day of .................................. 2003.

By: .................................................. By: ..................................................
On behalf of the Head: Transport Authority On behalf of the Head: Metropolitan Police Service

Witnesses:

1. __________________________  2.__________________________
ADDENDUM A

ETHEKWINI TRANSPORT AUTHORITY

PUBLIC TRANSPORT ENFORCEMENT STRATEGY

SERVICE SPECIFICATION

1. PREAMBLE

The ETA has as one of its main objectives to promote and assist public transport. The public transport enforcement strategy is aimed at restoring and maintaining law and order in the industry, for the benefit of passengers, and the legal operators. Those who comply with the law will have nothing to fear.

2. STAFF AVAILABLE

1 Superintendent 
2 Inspectors 
4 Sergeants 
28 Constables

Four teams will operate each with one sergeant and seven constables.

3. PROBLEMS TO BE TARGETED AT RANKS
(both off street and on street ranks and stops)

Rank permits issued by the City

- Enforce and fine
- For second offenders, eviction from the rank and impound if they disobey.

Other Activities

- Illegal vehicles on the rank
- Public Transport vehicles parking / ranking outside of demarcated areas.
- Washing of vehicles other than in washing bays.
- Obstruction of vehicle or pedestrian movements.
- Double Parking.
- Ranking at stops.
- Illegal signage.
- Repairing vehicles.
- Illegal informal traders.
4. PROBLEMS TO BE TARGET ON ROUTES

Route permits issued by Permit Board

- Enforce and fine.
- For second offenders impound vehicles.

Other activities

- Check for valid C.O.F.
- Check for vehicle roadworthiness
- Check for stolen vehicles.
- Check that driver has - Valid licence
  - Valid PDP
- Check for moving offences including recklessness.
- Speed enforcement.
- Touting.
- Loud music.
- Overloading.

5. ONGOING MONTHLY ENFORCEMENT PROGRAMME

Week 1 - All central area ranks
Week 2 - All central area routes
Week 3 - All outer area ranks
Week 4 - All outer area routes

6. EVALUATION REPORT

Monthly evaluation report to be submitted to ETA to indicate what areas were covered, the number of offences, the service provided, and the outcomes / result.