

PFUKANI-KUSILE  
CONSULTING PRESENTS:



MAKHUDUTHAMAGA  
LOCAL MUNICIPALITY

*Mmogo re šomela diphetogo!*

# MAKHUDUTHAMAGA LOCAL MUNICIPALITY

## DRAFT LOCAL INTEGRATED TRANSPORT PLAN 2024



STAND NO 1  
GROBLERSDAL ROAD  
JANE FURSE  
1085

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## DEFINITIONS

In these Requirements, unless the context indicates otherwise, any word or expression to which a meaning has been assigned in the Act has that meaning, and:

**“Accessible transport”** means transport that is accessible to all persons in the area, including, but not limited to, targeted categories of passengers, and includes reasonable accessibility of pedestrians and cyclists to their intended destinations in a safe and convenient manner, and in relation to infrastructure means the design of facilities that are usable by all people to the greatest extent possible, with or without the need for adaptation or specialized design;

**"Act"** means the National Land Transport Act, 2009 (Act No. 5 of 2009).

**“BRT”** means Bus Rapid Transit.

**Bus** – a motor vehicle designed or modified to carry more than 34 persons, including the driver.

**Business marketing plan** – a plan aimed at effectively managing and marketing the public transport services in the planning area.

**Capacity management** – the application, by a transport authority, of policies or measures to match the supply of a service (e.g. public transport) with the demand for that service.

**"CITP"** means a Comprehensive Integrated Transport Plan.

**Commuting** – travelling to and from one’s daily work.

**Concession** – the authority and contract to operate a rail line or network at an agreed price.

**Contract** – an agreement between an authority and an operator regarding the delivery of a public transport service at an agreed price.

**"DITP"** means a District Integrated Transport Plan.

**"DoT"** means the Department of Transport in the National Sphere of Government ("Department" as defined in the Act);

**"Facilities"** means Ranks, Terminals, Stations, Holding Areas, Informal Taxi Ranks and Holding Areas and Major Boarding Points in Rural Areas, for Road and Rail Based Public Transport.

**Framework** – an outline or skeleton which provides the structure and form around which a plan, policy or strategy is constructed.

**Gazette** – means the national Government Gazette. **Goal** – an idealised end-state of the system, or a desired direction for the evolution of the system.

**"Guidelines"** means any Technical Transport Planning Guidelines prepared by the DoT and that are available from the DoT on request.

**Integrated Development Plan (IDP)** – a plan which in terms Section 25 of Chapter 5 of the Municipal Systems Act, (32 of 2000) IDP must be prepared by a municipality.

**Integrated Public Transport Network (IPTN)** – a system in a particular area that integrates public transport services between modes, with through-ticketing and other appropriate measures to provide users of the system with the optimal solutions to be able to travel from their origins to destinations in a seamless manner.

**"IDP"** means an Integrated Development plan contemplated in section 25 of the Municipal Systems Act.

**“IPTN”** means Integrated Public Transport Network.

**"ITP"** means an Integrated Transport Plan contemplated in section 36 of the Act.

**"LITP"** means a Local Integrated Transport Plan.

**“MRE”** means a Municipal Regulatory Entity.

**“Municipal Systems Act”** means the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000) (“Systems Act” in the Act).

**"NLTSF"** means the National Land Transport Strategic Framework prepared in terms of section 34 of the Act.

**“NMT”** means Non-motorised Transport.

**“NPTR”** means the National Public Transport Regulator.

**“OL”** means an Operating Licence.

**"OLAS"** means the Operating Licence Administrative System contemplated in section 6(5) of the Act.

**"OLP"** means an Operating Licences Plan.

**“PA”** means a Planning Authority.

"**PMS**" means a Pavement Management System.

"**PRASA**" means the Passenger Rail Agency of South Africa established in terms of section 23 of the Legal Succession to the South African Transport Services Act, 1989 (Act No. 9 of 1989).

"**PLTF**" means a provincial land transport framework prepared in terms of section 35 of the Act.

"**PRE**" means a Provincial Regulatory Entity.

"**PTP**" means a Public Transport Plan.

"**Requirements**" means the Requirements set out in this Schedule.

"**Route**" means the roads or railway lines that are traversed by a vehicle or train from point of origin to point of destination or, in the case of road-based transport where no roads are clearly demarcated, the route followed by the vehicle as described with reference to landmarks or beacons.

"**SDF**" means a Spatial Development Framework.

"**Services**" means public transport services.

"**Targeted categories of passengers**" means—

(a) persons with disabilities; and

(b) the elderly, pregnant women, scholars, young children and those who are limited in their movements by children.

"**TDM**" means Travel (Transport) Demand Management.

"**TOD**" means Transit-Oriented Development, and

"**TR**" means a Transport Register

## ABBREVIATIONS

<b>AARTO</b>	:	Administrative Adjudication of Road Traffic Offences Act 46 OF 1998
<b>ACSA</b>	:	Airports Company South Africa
<b>AFC</b>	:	Automated Fare Collection System
<b>APTMS</b>	:	Advanced Public Transport Management Systems
<b>ATIS</b>	:	Advanced Traveler Information Services
<b>CPTR</b>	:	Current Public Transport Records
<b>CBD</b>	:	Central Business District
<b>EPWP</b>	:	Expanded Public Works Program
<b>HOV</b>	:	High Occupancy Vehicle
<b>IDP</b>	:	Integrated Development Plan
<b>ITP</b>	:	Integrated Transport Plan
<b>ITS</b>	:	Intelligent Transport System
<b>KPI</b>	:	Key Performance Indicators
<b>LDV</b>	:	Light Delivery Vehicles
<b>LED</b>	:	Local Economic Development
<b>LITP</b>	:	Local Integrated Transport Plan
<b>MEC</b>	:	Members of the Executive Council
<b>MIG</b>	:	Municipal Infrastructure Grant, Road Fund
<b>MINMEC</b>	:	National Minister of Transport & Provincial MEC's
<b>MSA</b>	:	Municipal Systems Act (32 of 2000)
<b>NATMAP</b>	:	National Transport Master Plan (2050, 2011)
<b>NDOT</b>	:	National Department of Transport
<b>NDP</b>	:	National Development Plan (2030, 2012)
<b>NEMA</b>	:	National Environmental Management Act 107 OF 1998
<b>NGO</b>	:	Non-Government Organisation
<b>NLTA</b>	:	National Land Transport Act 5 of 2009
<b>NLTSF</b>	:	National Land Transport Strategic Framework 2006-2011
<b>NMT</b>	:	Non-Motorized Transport
<b>NRTA</b>	:	National Road Traffic Act (Act No. 93 of 1996)
<b>NSDP</b>	:	National Spatial Development Perspective
<b>OLS</b>	:	Operating License Strategy
<b>OLB</b>	:	Operating Licensing Board
<b>PAJA</b>	:	The Promotion of Administrative Justice Act 3 OF 2000
<b>PIG</b>	:	Provincial Infrastructure Grant
<b>PLTF</b>	:	Provincial Land Transport
<b>PMS</b>	:	Pavement Management System
<b>PTIFG</b>	:	Public Transport Infrastructure Grant
<b>PTISG</b>	:	Public Transport Infrastructure and Systems Grant (NDoT Conditional)
<b>PTP</b>	:	Public Transport Plan
<b>RatPlan</b>	:	Rationalization Plan,
<b>RAL</b>	:	Road Agency Limpopo
<b>RTMC</b>	:	Road Traffic Management Corporation
<b>RTSSA</b>	:	Rural Transport Strategy of South Africa, 2007
<b>SABS</b>	:	South African Bureau of Standards
<b>SACAA</b>	:	South African Aviation Authority
<b>SANCB</b>	:	South African National Council for the Blind
<b>SANRAL ACT</b>	:	The South African National Roads Agency Limited And National Roads Act 7 Of 1998
<b>SARTSM</b>	:	South African Road Traffic Signs Manual, 2012
<b>SDF</b>	:	Spatial Development Framework
<b>SDM</b>	:	Sekhukhune District Municipality
<b>SEZ</b>	:	Special Economic Zone

<b>TDM</b>	:	Transport demand management
<b>TGSI</b>	:	Tactile Ground Surface Indicators
<b>TMC</b>	:	Transport Management Centre
<b>TNF</b>	:	Taxi Negotiation Forum
<b>TOD</b>	:	Transport Oriented Development
<b>TSM</b>	:	Transport System Management
<b>UN</b>	:	United Nations
<b>UNCRPD</b>	:	Convention on the Rights of Persons with Disabilities
<b>UTC</b>	:	Urban Traffic Control

## 1. INTRODUCTION

The Makhuduthamaga Local Municipality (MLM) is developing its Integrated Transport Plan (ITP), to comply with Sections 32(c) and 36 of National Land Transport Act, Act No. 5 of 2009 which requires a municipality to prepare and adopt an ITP as a component of its Integrated Development Plan (IDP).

This document defines the strategic approach for all transport within the municipality, encompassing an integrated, intermodal, and interoperable transport system alongside its associated road and rail network.

This document aims to eradicate the poor transport connections, lack of public transport facilities and routes, safe passage, especially at night, the significant cost of public and scholar transport from the surrounding settlements is a reason for concern.

### 1.1. Brief Background

Accessibility to public transport stand as one of the critical pillars for the prosperity of any municipality, significantly influencing the residents' quality of life, especially in the context of historical spatial disintegration in South Africa.

Although certain aspects of transport, such as public transport and arterial road management, extend beyond municipal control, municipalities play a pivotal role in prioritizing residents' needs within their respective regions, which include Integrated Transport Planning.

The Integrated Transport Plan serves as a strategic guide for municipalities, outlining their crucial role in addressing the overall transport needs of the residents.

#### Focus Areas of the ITP

The ITP prioritizes effective integration and collaboration with district, provincial, and national governments to deliver positive transport outcomes for the MLM. Recognizing the crucial role of transport and access in municipal success, the plan emphasizes the historical context of spatial disintegration and aims to enhance liveability in a more equitable manner.

#### Infrastructure Development and Economic Considerations

The ITP places significant emphasis on both new infrastructure development and optimizing existing infrastructure to achieve its outlined outcomes. Considering challenging economic conditions, population growth, diverse communities, and evolving technology, the formulation of this ITP becomes imperative.

#### Plan Differentiation and Categorization

The ITP distinguishes between three types of municipal Transport Planning Authorities (TPAs) based on jurisdiction size and transport activity levels. These are Comprehensive Integrated Transport Plan (CITP), District Integrated Transport Plan (DITP), and Local Integrated Transport Plan (LITP), each tailored to specific planning requirements.

This LITP serves as the proposed ITP for the Makhuduthamaga Local Municipality.

#### Relationship with Statutory Plans:

The ITP aligns with the National Land Transport Strategic Framework (NLTSF) and Provincial Land Transport Framework (PLTF), ensuring consistency and collaboration with national policies and

strategies. This enhances the effectiveness of transport planning and land transport delivery across different governmental levels.

The ITP aims to achieve this through a set of visions, missions, and objectives, facilitating decision-making processes for National, Provincial, and Local Governments.

## 1.2. Project Purpose

The Integrated Transport Plan provides strategic direction for the municipality to undertake this role to best meet the needs of its residents. The Plan aims to achieve this through:

- A series of visions, missions and objectives relating to transport to aid National, Provincial and Local Government in the decision-making process.
- A series of projects aimed at maximizing movement (access) and opportunities for Local, Provincial and National Government collaboration with relation to transport.

## 1.3. Scope of Work

The contents of the MLM ITP are in line with the Technical Transport Planning Guidelines for Local Integrated Transport Plans to be prepared by Type 3 Planning Authorities, 2009. The table below highlights different types of ITPs that are being undertaken by different spheres of government.

Planning Authority	Type of ITP	Level of Governance
Type 3	The Local ITPs are summarized and included in the relevant DITPs. LITPs are not submitted directly to the MEC.	LMs
Type 2	The completed DITP is submitted to the MEC to be affected in the PLTF	DMs
Type 1	The Comprehensive ITP is submitted to the MEC to be reflected in the PLTF.	Larger Municipalities

Table 1: different types of ITPs that are being undertaken by different spheres of government.

The ITP document will remain effective for a period of 5 years and serves as a transport-focused extension of the Integrated Development Plan (IDP).

The table gives an overview of the minimum requirements of undertaking Type 3 ITP and the proposed MLM ITP document.

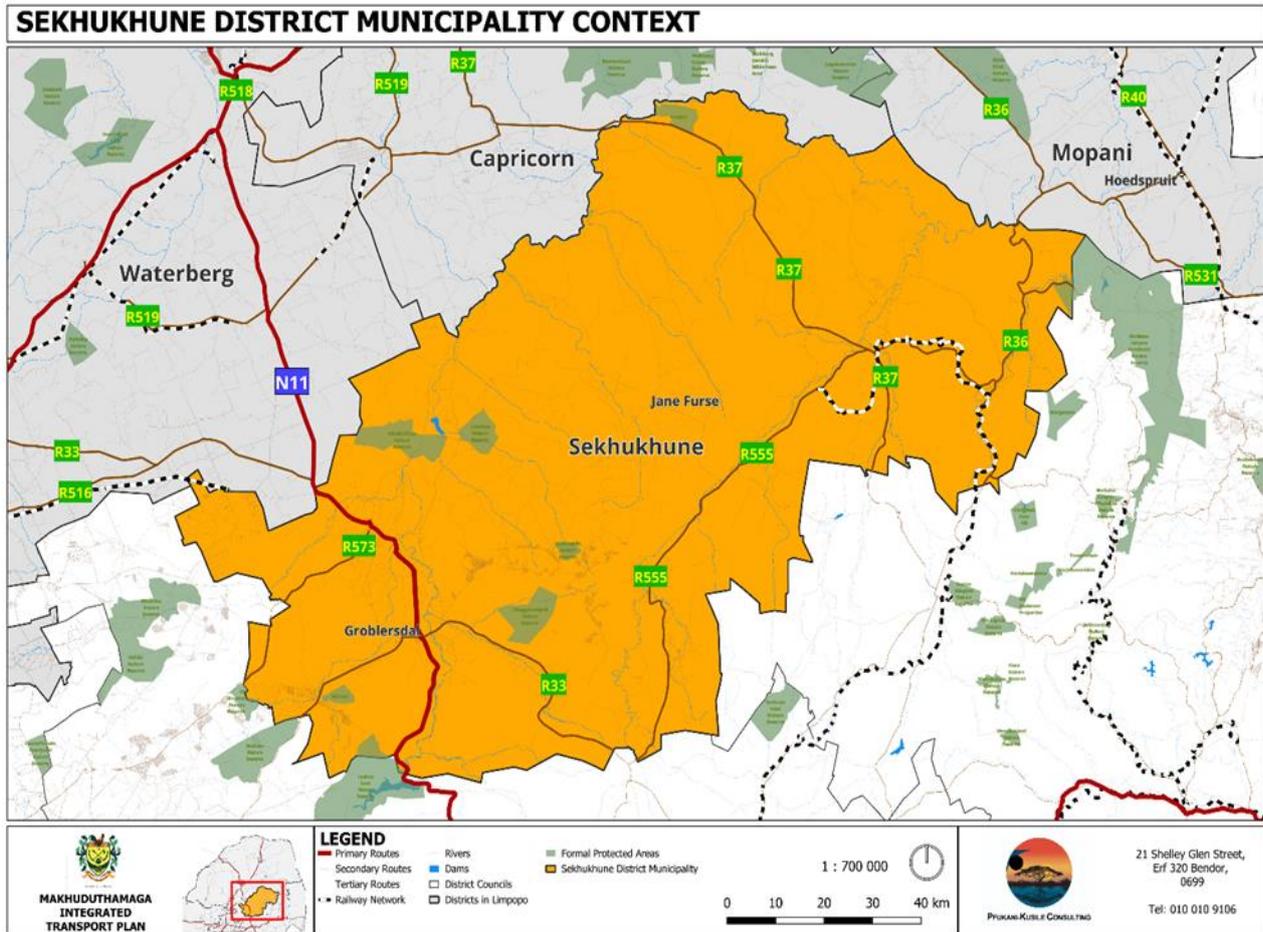
Minimum Requirements	Proposed Makhuduthamaga LM ITP
Chapter 1: Introduction	Chapter 1: Introduction
Chapter 2: Transport Status Quo	Chapter 2: Transport Vision and Objectives
Chapter 3: Transport Needs Assessment	Chapter 3: Transport Register
Chapter 4: Transport Improvement Proposals	Chapter 4: Spatial Development Framework
Chapter 5: Implementation, Budget & Programme	Chapter 5: Transport Needs Assessment
	Chapter 6: Public Transport Plan
	Chapter 7: Transport Infrastructure Strategy
	Chapter 8: Non-Motorized Transport Strategy
	Chapter 9: Freight Transport Strategy
	Chapter 10: Funding Strategy and Summary of Proposals and Programmes
	Chapter 11: Stakeholder Consultation
	Chapter 12: Conclusion

Table 2: Minimum requirements of the LITP

### 1.4. The Study Area

The Makhuduthamaga Local Municipality (MLM) is positioned within the Sekhukhune District Municipality (SDM) in the Limpopo Province. The MLM shares its borders with the Capricorn District to the north, Elias Motsoaledi to the south, Fetakgomo Tubatse Local Municipality to the east, and Ephraim Mogale to the west.

It is one of the four municipalities comprising the district, covering 16% of its total geographical area. The categorization of the municipality pays homage to those who actively supported the anti-apartheid struggle in Sekhukhuneland during the 1950s.



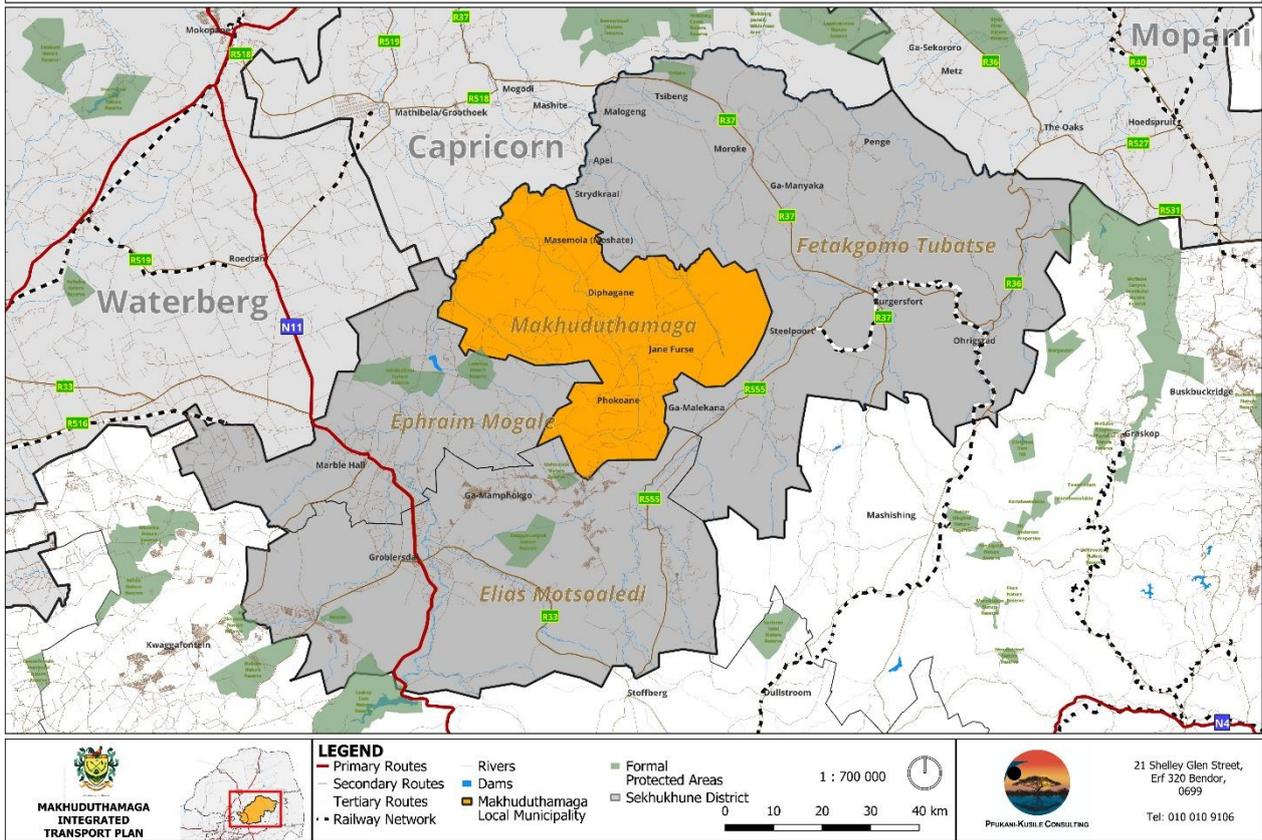
Map 1: Map showing district municipality context map

Its location within the broader SDM renders it a strategically significant area for the establishment of regional offices and as the administrative hub within the region.

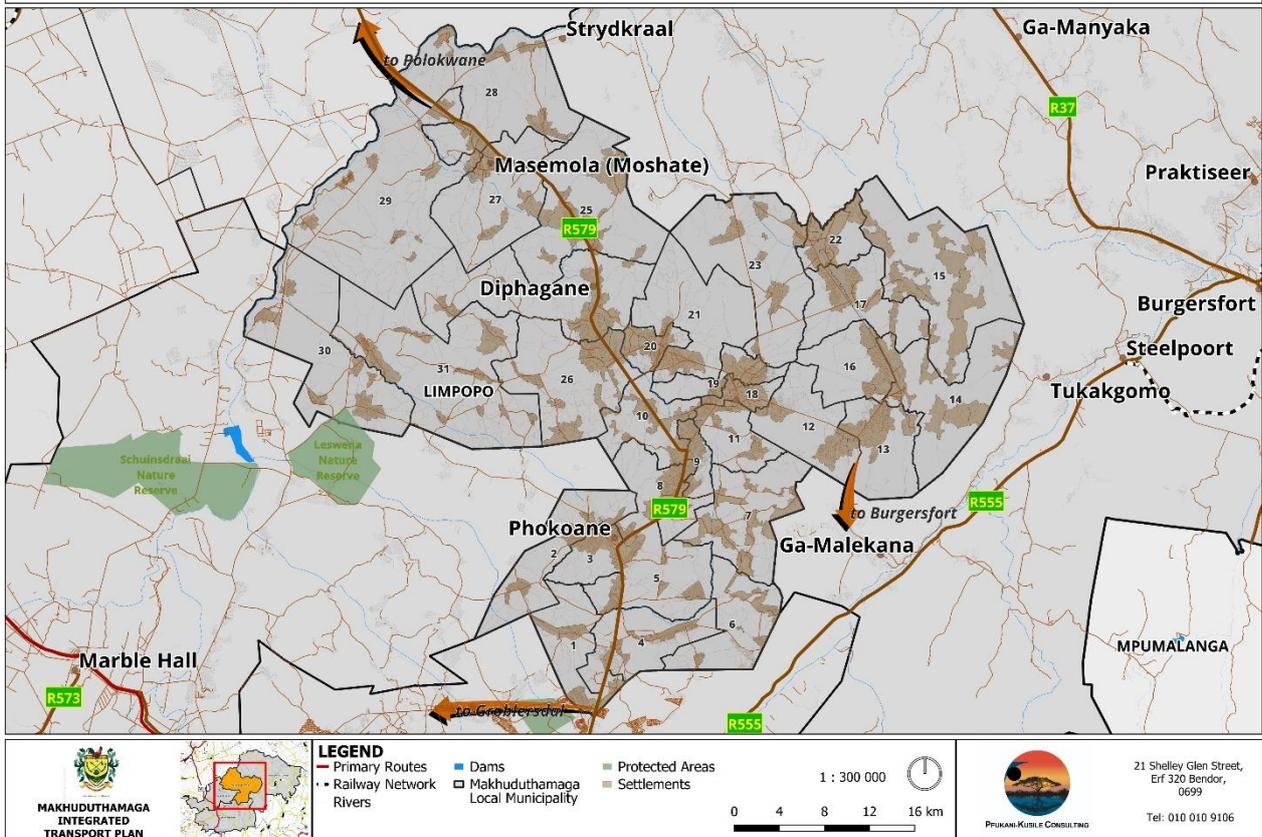
Jane Furse serves as the headquarters of the municipality, strategically situated approximately 347 Kilometers northeast of Johannesburg and 189 Kilometers southeast of Polokwane.

With a total of 31 wards, the municipality is predominantly characterized by rural settlements, with Jane Furse exhibiting a notable urban character amidst its surroundings.

**MAKHUDUTHAMAGA ITP: DISTRICT MUNICIPALITY CONTEXT**



**MAKHUDUTHAMAGA ITP: LOCAL MUNICIPALITY CONTEXT**



Map 2: Map showing Makhuduthamaga Local Municipality Locality and wards

The below table highlights all the wards and its associated villages/settlements within the jurisdiction of the municipality.

Wards	Settlements
1.	Ga Tshehla, Hlalanikahle, Kutupu, Ratanang Kutupu Extension
2.	Phokoane, Mabintane, Mogudi
3.	Mokgapaneng, Makoshala, Phokoane(Malegale) Phokoane (Mapaeng) Pho-koane (Ramabele Malatji,Lefakong,Skotiphola and Mashifane), Phatametsane, Masioneng
4.	Rietfontein, Vierfontein A, B, C, Katlegong (Vierfontein D, Vierfontein E (Mashemong section)
5.	Maserumule Park, Mohlarekoma, Leeukraal, Matlakakatlle A and B
6.	Eenzaam Trust, Patantshwane B, Patantshwane A, Eenzaam Kgoloko, Mare, Ga-Mmaboki, Ga-Diago
7.	Thoto, Malaka, Ntoane, Manthlanyane, Manotong, Dikatone, Setebong
8.	Mathousand / Hlahlane, Pelepele Park / Maswiakae, Mochadi, Brooklyn, Leoka-na, Caprive
9.	Riverside, Morgenson, Magapung
10.	Mogorwane, Moripane A and B, Phushulang, Ngwanamatlang, Ga-Moloi
11.	Ga-Molepane, Mokwete, Vergelegen A
12.	Ga-Moretsele, Ga-Makgeru, Ga-Ratau, Makgane, Ga-Senamela, Ga-Maphopha
13.	Mashengwaneng, Ga-Mogashoa Manamane, Ga-Mogashoa Ditlhakaneng, Phase Four, Mabonyane
14.	Ga-Sekele, Moela, Kgopane, Ga-Maloma, Ga-Seopela, Legapane, Ga-Tshesane, Dingoane, Matiloaneng B, Mabule, Tsopaneng, Stocking
15.	Mohlakaneng / Tswele, Houpakranz, Mohlake, Ga-Magolego, Ga-Maila Mapitsane, Dlamini
16.	Dihlabaneng, Mashegwana Legare, Kotsiri, Ga-Mashegwana Tswaledi
17.	Manganeng, Ramphelane, Mashite, Mathibeng (Ga Toona), Kgolane
18.	Jane Furse RDP, Vergelegen B, Dicheoung, Ga-Moraba
19.	Madibong (Malaeneng, Sechabeng, Ga- Mokgwatsane, Sekhutlong and Masio-long), Mamone (Matsoke), Vergelegen C, Mashishing
20.	Ga-Tisane, Mamone (Rantho), Magolaneng, Mamone (Manyeleti), Mamone Centre
21.	Mamone- Matsoke, Mamone – A1 Bothas (Ga-Mohlala), Mamone – A2 (Ga-Mohlala), Mamone – A3 (Ga-Manyaka), Mamone –A4 (Tanzania)
22.	Malegale (Sebitje), Sebitjane, Lekgwareng, Tjatane, Tjatane Extension, Madibaneng (Matolokwaneng), Greater Madibaneng
23.	Ga-Maila Segolo, Dinotji, Mathibeng, Marulaneng, Mashupye, Maseleseleng / Sebitlule
24.	Diphagane, Ga-Phaahla, Masehlaneng, Lobethal, Mamoshalele, Porome, Mamatjekele
25.	Maololo, Ga-Mashabela (Malegasane), Mohwelere, Molebeledi, Machacha, Ga-Selepe, Ga-Marodi, Mapulane / Talane, Mahlakanaseleng
26.	Mathapisa, Mampane Thabeng, Kgarethuthu, Soedtveld, Ga-Marishane, Bo-thaspruit), Makgophong / Porome
27.	Mabopane, Manare, Mohloding, Masemola (Moshate), Thabampshe Cross ex-tension (Mabopane), Morareleng, Police station extension
28.	Thabampshe, Tswaing, Ga-Maphutha, Wonderboom, Maroge, Mahubitswane, Mahlakole, Vlakplaats
29.	Malope, Molelema, Mahlolwaneng, Mashoanyaneng, Maraganeng, Pitjaneng, Machasdorp, Mphane, Makgwabe, Moji / Sekale/Apel cross
30.	Krokodile, Setlaboswane, Legotong, Serageng, Masanteng, Mogaladi
31.	Kome, Ntshong, Mmotwaneng, Masakeng, Mangwanyane, Vlakplaats, Eenkantaan, Motseleope Makhutso, Semahlakole / Sehuswane

Table 3: Table showing Makhuduthamaga Local Municipality Wards

### 1.5. Demographic

The municipal demographics characterized by the following factors:

- The current population of MLM is 340 328, as per Census 2022. This shows a 23.8% increase from the 2011 Census.

- The difference between the 2001 and 2011 Census is 4.8% as in 2001 the total population of MLM was 262 246 and in 2011 was 274 880.
- In the 1996 Census, there was a higher population in the municipality compared to 2001 as in 1996, it was recorded at 270 533. Between 1996 and 2001, the population decreased by 3.06%.
- The MLM is ranked 2<sup>nd</sup> in terms of population in the District Municipality and ranked 4<sup>th</sup> in the province.
- Limpopo is the 5<sup>th</sup> largest population by size within the country.

The table below representing the municipality's Census data:

Year	Population	Total increase/decrease from previous Census	% increase/decrease from previous Census
2022	340 328	+65 448	+23.8%
2011	274 880	+12 634	+4.8%
2001	262 246	-8 307	-3.06%
1996	270 533	-	-

Table 4: Table showing MLM population data from Census 2022

Location	Population	Population (%) of SDM	Population (%) of Province	Population (%) of RSA	Ranked contribution RSA
MLM	309 050	25.59%	5.23%	0.52%	65th
Sekhukhune DM	1 207 610	100.00%	20.43%	2.02%	14th
Limpopo Province	5 909 760	0.00%	100.00%	9.87%	5th
South Africa	59 852 200	0.00%	0.00%	100.00%	-

Table 5: Table showing the MLM population data from Quantec in 2021

According to Quantec, the population of the municipal area was 309,050 in 2021, accounting for 0.52% of South Africa's total population. In 2021, the municipality was ranked 65th in population size among South African municipalities.

The population growth rate within the municipal area for 2021 was 0.60%, which is lower than the Sekhukhune District's growth rate of 0.72% but higher than Limpopo's growth rate of 0.51%. Nationally, South Africa experienced a population growth rate of 1.02% in 2021.

From 2017 to 2021, municipal area's population grew at an average annual rate of 0.83%, which is below the district's average growth rate of 1.15%, Limpopo's 1.01%, and the national average of 1.47%.

Over the longer period from 1994 to 2021, the average annual population growth rate in the municipality was 0.96%. This is slightly lower than the district's average of 1.05%, higher than Limpopo's 0.83%, but still below South Africa's national average of 1.39%.

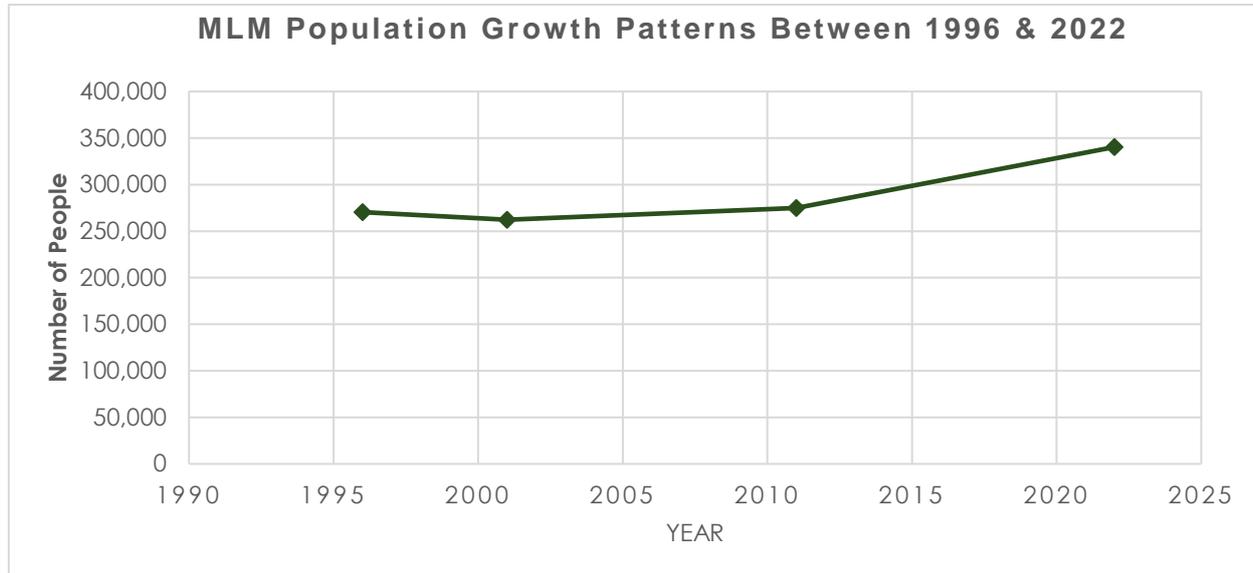


Figure 1: Line graph showing the population growth pattern between 1996 and 2022 (Census 2022)

The figures of 1996 and 2011 are similar, where the population was 270 533 and in 2011 it was 274 880 in 1996. This shows a decrease in the number of people who were living in the municipal area in 2001, compared to 1996.

The slow growth was due to the decline in population recorded in the 2001 census. The growth in population between 2011 and 2022 is significant as in previous Census' growth was slow and, in some cases, even negative. The pull factors drawing people to the municipality have been greatly working.

### 1.5.1. Gender

As per the Census 2022, 54,2% are females and 45,8% are males. This implies that 184 458 people in the municipality are females and 155 870 are males, therefore the municipality is dominated by females. The sex ratio of females appears to be gradually decreasing while that of males is steadily increasing. The below table for the sex ratio.

Year	Male	Female
2022	45,8%	54,2%
2011	44,2%	55,8%
2001	43,4%	56,6%
1996	44,0%	56,0%

Table 6: Table showing the sex ratio of the residents of Makhuduthamaga Local Municipality (Census 2022)

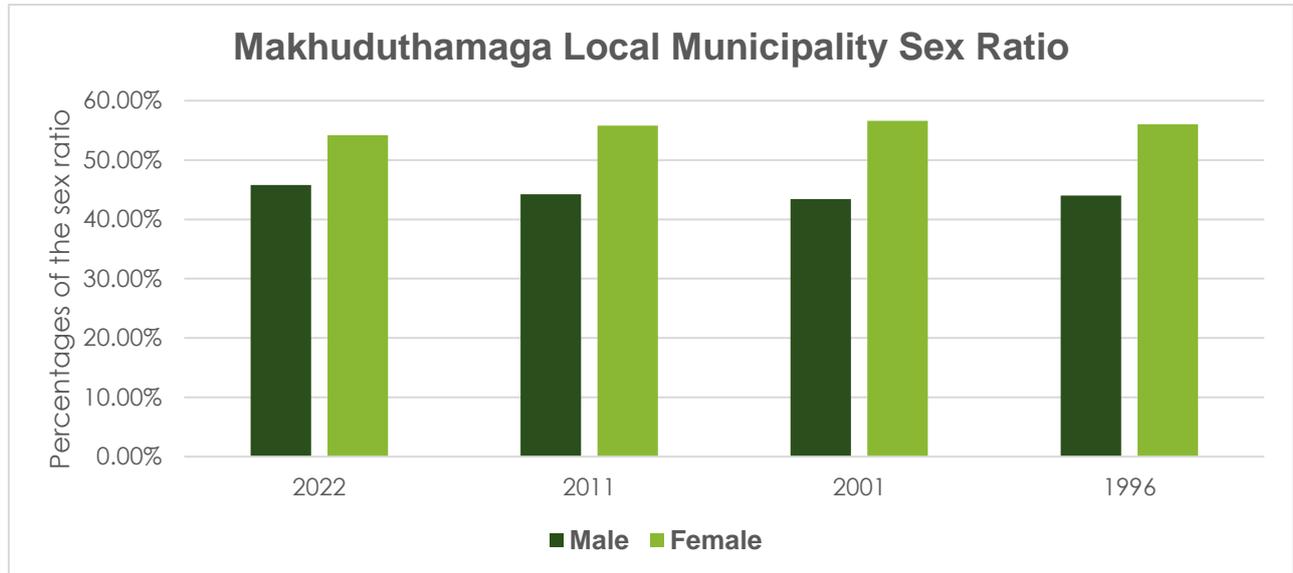


Figure 2: Bar graph showing the Makhuduthamaga Local Municipality sex ration (Census 2022)

In 2021, females were the largest gender group in the MLM, making up 55.22% of the population. Males contributed 44.78% to the population of the municipality, which is lower than the male population contribution in the district municipality at 47.22%, in the province at 47.65%, and the country at 48.99%.

Conversely, the female population contribution in the municipal area is at 55.22% which is higher than the district one at 52.78%, in the province at 52.35%, and in South Africa at 51.01%.

### 1.5.2. Population Age

According to Census 2022, 34.7% (118 094) of the population are children (14 years and younger), making 222 234 people over the age of 14 years old. 57.3% of the population are classified as working age group (ages 15 to 64) and 8% (27 226 people) of the total population are classified as elderly people (65 years or older).

Quantec data shows that the age categories of 0-4 years, 5-14 years and 15-34 years reflect a decrease in population when comparing with the population in 2011 and 2022. A significant rise in population is observed between 2011 and 2022 for the age category of 35-59 years old, as it has increased from 25 001 to 32 205, within 10 years period. The age category of 60 and above also showed an increase between 2011 and 2022 (retirement age).

Year	2011	2022
0-4yr ECD population	16 562	15 547
5-14yr Child population	27 354	26 821
15-34yr Youth population	42 964	42 542
35-59yr Adult population	25 001	32 205
60+yr Elderly population	11 768	15 341

Table 7: Table showing the Makhuduthamaga Local Municipality age category population

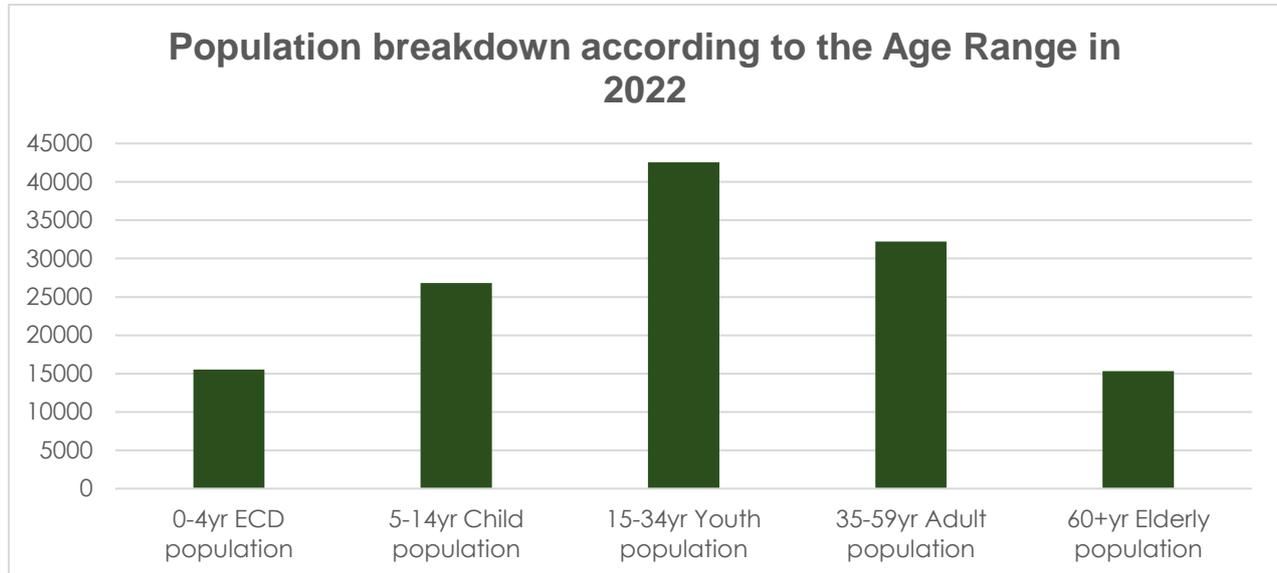


Figure 3: Graph showing the Makhuduthamaga Local Municipality age categories in 2022 (Quantec)

The working age population was at 57,3% in 2022, which is an increase of 3,4% compared to the 2011 Census. Over the years, the working-age population has been on a gradual rise. The below table highlight the working age group trend over the years.

Description	2022	2011	2001	1996
Working age population (15-64 years)	57,3%	53,9%	51,3%	48,6%

Table 8: Table showing the Makhuduthamaga Local Municipality working age range (Census 2022)

Census 2022 also revealed that there are more elderly people in the municipality in 2022 than in 2011 as 8% of a total of 340 328 people in 2022 is 27 226 and 8% of the total population of 274 880 is 21 990 people.

### 1.5.3. Education

Census 2022 reveals, 16.4% (55 814 people) of the population have no formal schooling. This statistic has decreased over the previous 11 years as in 2011, 23.4% of 274 880 people had no formal education. The education or literacy level within the municipality is summarized in the below table.

Education Level	Frequency	%
No Schooling	504 793	14,1%
Some Primary	260 924	7,3%
Completed Primary	117 534	3,3%
Some Secondary	1 186 898	33,1%
Grade 12/Std10	1 128 816	31,5%
Higher Education	354 732	9,9%

Table 9: Table showing the Makhuduthamaga Local Municipality residents education levels (Census 2022)

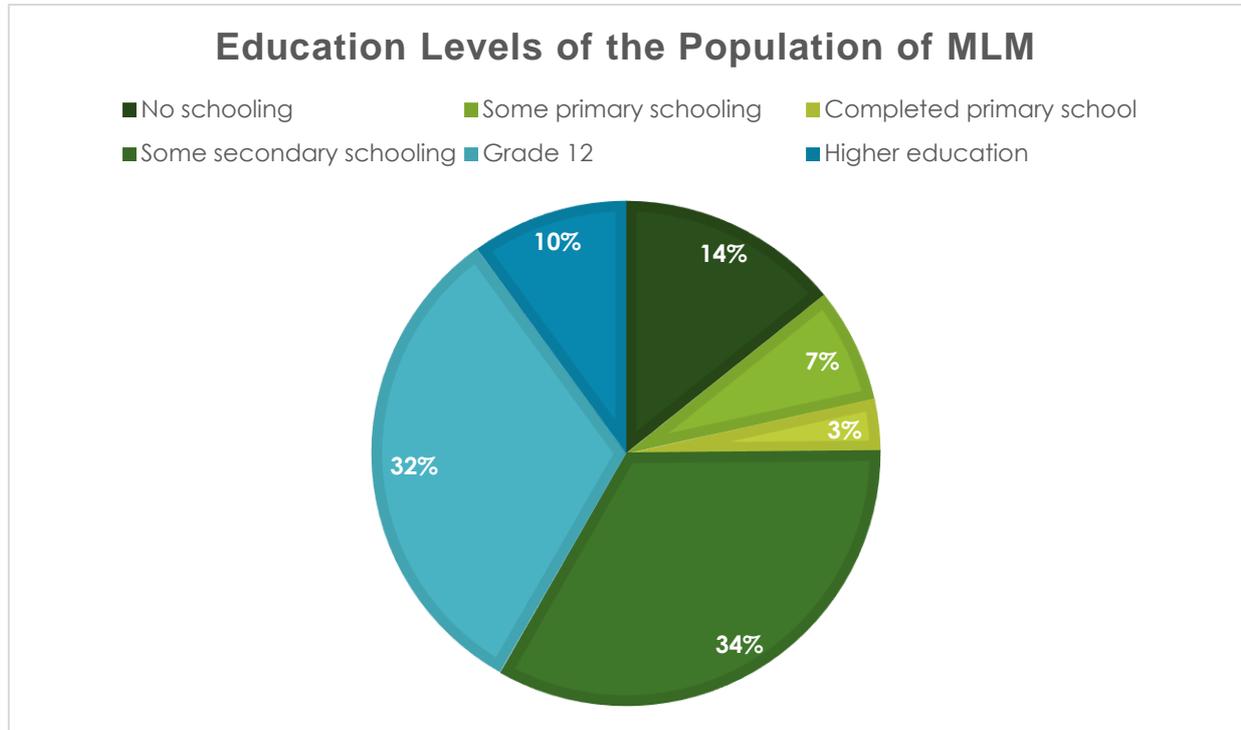


Figure 4: Pie chart showing the Makhuduthamaga Local Municipality residents education levels

## 1.6. Socio-Economic Matters

The socio-economic issues of the municipality is summarized below.

- The community and social sector stand as the predominant employer within the area, comprising municipal employees, educators, and health practitioners, and representing 45.4% of the total workforce.
- Following closely is the wholesale and retail sector, while sectors such as manufacturing, mining, energy, and finance make minimal contributions to employment, each accounting for less than 5% of the workforce.

This distribution underscores the current state of development within the area, indicating a lack of sufficient economic activities to support industrialization efforts.

### 1.6.1. Employment

Employment is defined as the total number of persons between the ages of 15 and 64 years, who did any work for at least an hour during a given week or had a job or business during this period. According to Census, 2022, 81 933 residents of the municipal area are unemployed, which represents most of all residents. There are 52 314 people that are economically active (employed or unemployed but looking for work), and of these, 62,7% are unemployed.

The below pie chart illustrates the employment status of the municipality.

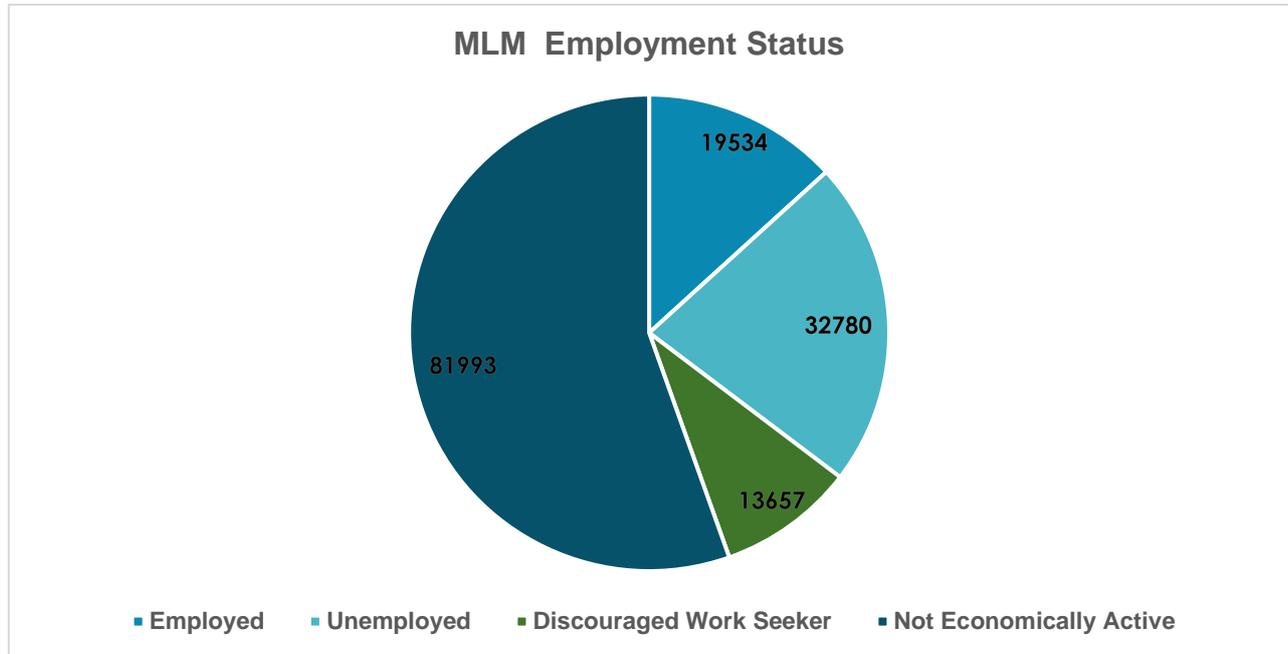


Figure 5: Pie chart showing the Makhuduthamaga Local Municipality Residents Employment Status

The employment within the municipal area contributed 0.15% in 2021 to total South African employment. The status of employment within the municipality ranked 14th in 2021 in the country.

Location	Employment in Thousands	Employment (%) of District Municipality	Employment (%) of Province	Employment (%) of South Africa
MLM	21 490	16.86	2.22	0.15
Sekhukhune DM	127 440	100.00	13.14	0.88
Limpopo Province	969 470	-	100.00	6.67
South Africa	14 543 240	-	-	100.00

Table 10: Table showing the MLM employed population (Quantec)

### 1.6.2. Unemployment

The unemployment rate within the municipal area was 67.31 in 2021. The unemployment rate was 56.39% on average over the period of 2017 to 2021. This is higher than the district rate of unemployment at 44.29% on average over the period and higher than the province at 29.04% on average over the period.

The unemployment rate has increased over the period 1993 to 2021 at 62.04% on average, higher than the district at 52.66% on average, higher than the province at 35.52% on average and higher than the country at 28.28% on average over the said period.

Location	Unemployment rate (Percentage)	Unemployment rate (Percentage) average from 1993 to 2021	Unemployment rate (Percentage) average from 2017 to 2021
MLM	67.31	56.39	62.04
Sekhukhune DM	58.65	44.29	52.66
Limpopo Province	41.70	29.04	35.52
South Africa	34.49	22.91	28.28

Table 11: Table showing the Makhuduthamaga Local Municipality unemployed population (Quantec)

### 1.6.3. Households Income

Census 2022 states that over 25% of the population earn between R9 601 to R19 600. Only 1% of the population earn within the bracket of R307 601 to R614 400. The MLM income levels is summarised in the below table.

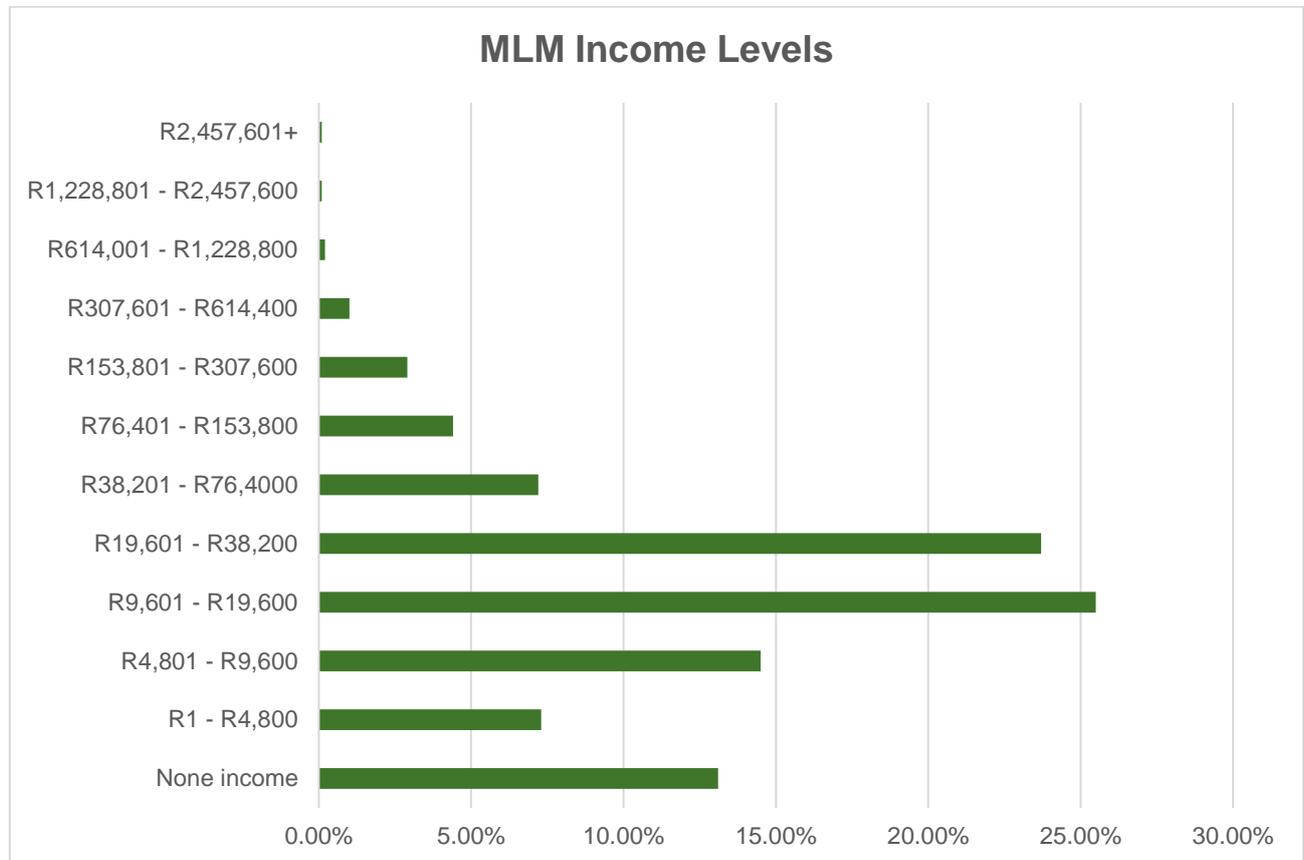


Figure 6: Bar graph showing the income levels of the residents living in Makhuduthamaga Local Municipality

### 1.6.4. Gini Coefficient

The Gini coefficient ratio of the municipality was 0.58 in 2021. The Gini coefficient of the municipal area was 0.53 on average over the period 2017 to 2021. This is lower than the value for the district of 0.58 on average, lower than the value of the province of 0.66 on average, lower than the value for the country of 0.69 on average over the period.

Location	Gini coefficient (Ratio)	Gini coefficient (Ratio) average from 1993 to 2021	Gini coefficient (Ratio) average from 2017 to 2021
MLM	0.58	0.53	0.57
Sekhukhune DM	0.65	0.58	0.64
Limpopo Province	0.69	0.66	0.69
South Africa	0.68	0.69	0.68

Table 12: Table showing the Makhuduthamaga Local Municipality Gini Coefficient

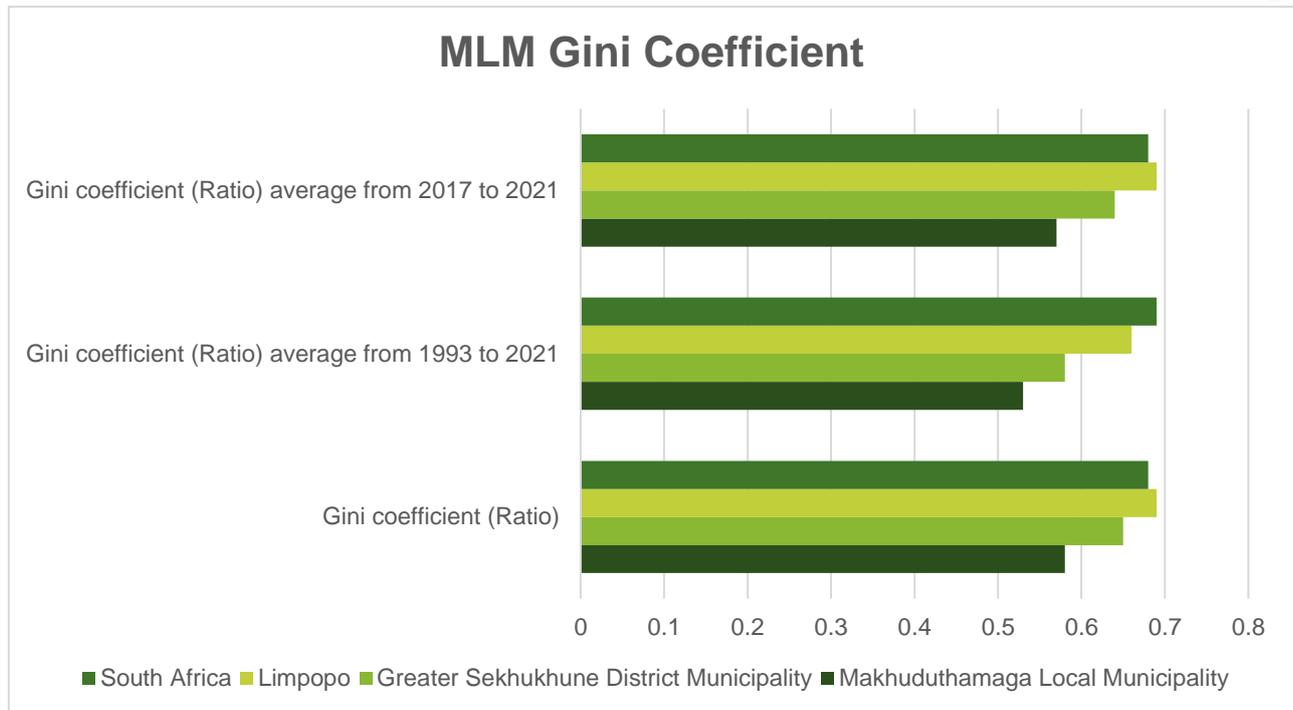


Figure 7: Histogram showing the Gini Coefficient from national, provincial, district to local government level

#### 1.6.5. GVA

In 2021, the Gross Value Added (GVA) per capita within the municipal area was 15,984.22. From 2017 to 2021, the average GVA per capita in the municipality was 14,146.71, which is lower than the district's average of 27,967.11, province's average of 42,198.76, and the country average of 65,429.56.

Location	GVA per capita (R constant 2015 prices)	GVA per capita (R constant 2015 prices) average from 1993 to 2021	GVA per capita (R constant 2015 prices) average from 2017 to 2021
MLM	15,984.22	14,146.71	16,262.21
Sekhukhune DM	32,659.88	27,967.11	33,165.98
Limpopo Province	45,027.77	42,198.76	46,030.02
South Africa	67,895.42	65,429.56	69,809.86

Table 13: Table showing the Makhuduthamaga Local Municipality Gross Value Added per capita

Over the longer period from 1993 to 2021, the average GVA per capita within the municipal area was 16,262.21. This is again lower than the averages for the Greater Sekhukhune (33,165.98), Limpopo (46,030.02), and the overall South African economy (69,809.86).

#### 1.7. Provision of Basic Services

The below table highlight the provision of basic services within the municipal area. It is important to note that there is a slight positive increase in the provision of services.

Provision of Basic Services	2022	2011	2001	1996
No schooling (20+ years)	16,4%	23,4%	44,4%	45,1%
Average household size	4,3	4,2	4,9	5,4
Formal dwellings	96,9%	90,0%	78,8%	67,9%
Flush toilets connected to sewerage	17,9%	3,7%	2,3%	2,6%
Access to piped water in the dwelling	18,9%	6,0%	-	-

Electricity for lighting	96,2%	90,4%	62,0%	25,2%
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Table 14: Table showing the Makhuduthamaga Local Municipality provision of basic services statistics between 1996 and 2022

### 1.7.1 Access to Piped Water

Access to piped water within the dwelling is low for the households of Makhuduthamaga as only 18,9% of all households have that access. 30,1% of households have no access to piped water at all, which is shocking since our democracy is over 3 decades old.

Type of water access	Number of Households	Percentage
Piped (tap) water inside the dwelling	14 810	18,9%
Piped (tap) water inside the yard	17 456	22,2%
Piped (tap) water on community stand	22 615	28,8%
No access to piped water	23 616	30,1%

Table 15: Table showing the Makhuduthamaga Local Municipality household provision of piped water

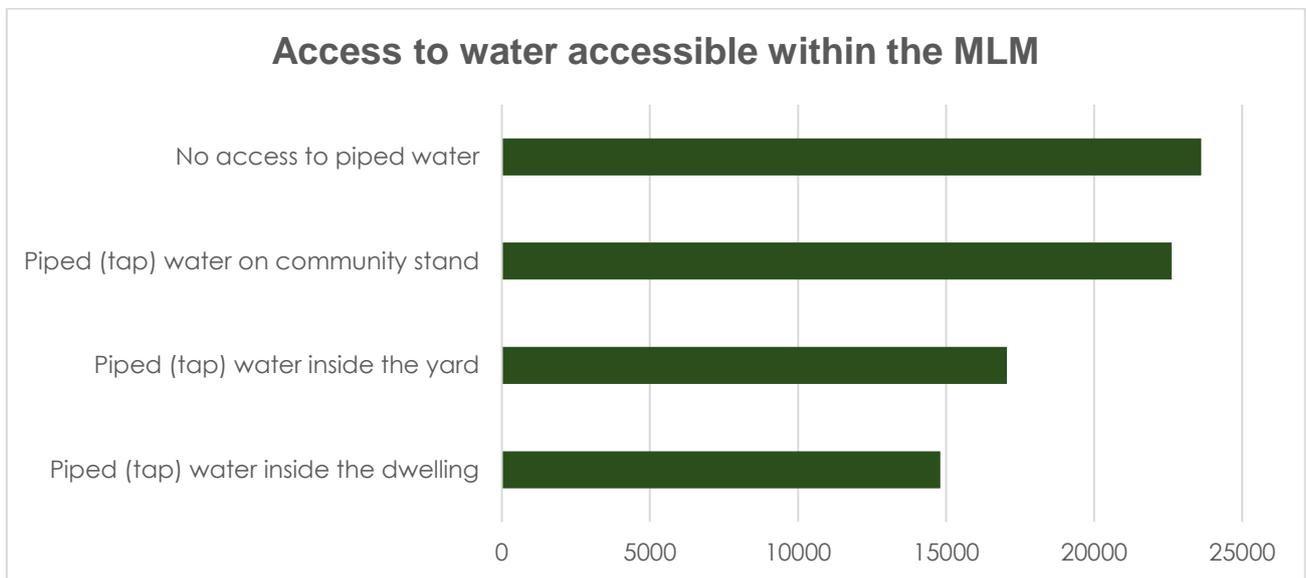


Figure 8: Bar graph showing the Makhuduthamaga Local Municipality provision of piped water

### 1.7.2 Access to Toilets

Only 17,9% of all households within the municipal area have access to flush toilets to the yards. Most of the population have access to pit toilets and estimated at 60 457 households. See the table below for more details.

Type of toilet access	Number of Households	Percentage
Flush toilet	14 042	17,9%
Chemical toilet	967	1,2%
Pit toilet	60 457	77,0%
Bucket toilet	1 035	1,3%
Other	1 287	1,6%
None	710	0,9%

Table 16: Table showing the Makhuduthamaga Local Municipality household access to toilets

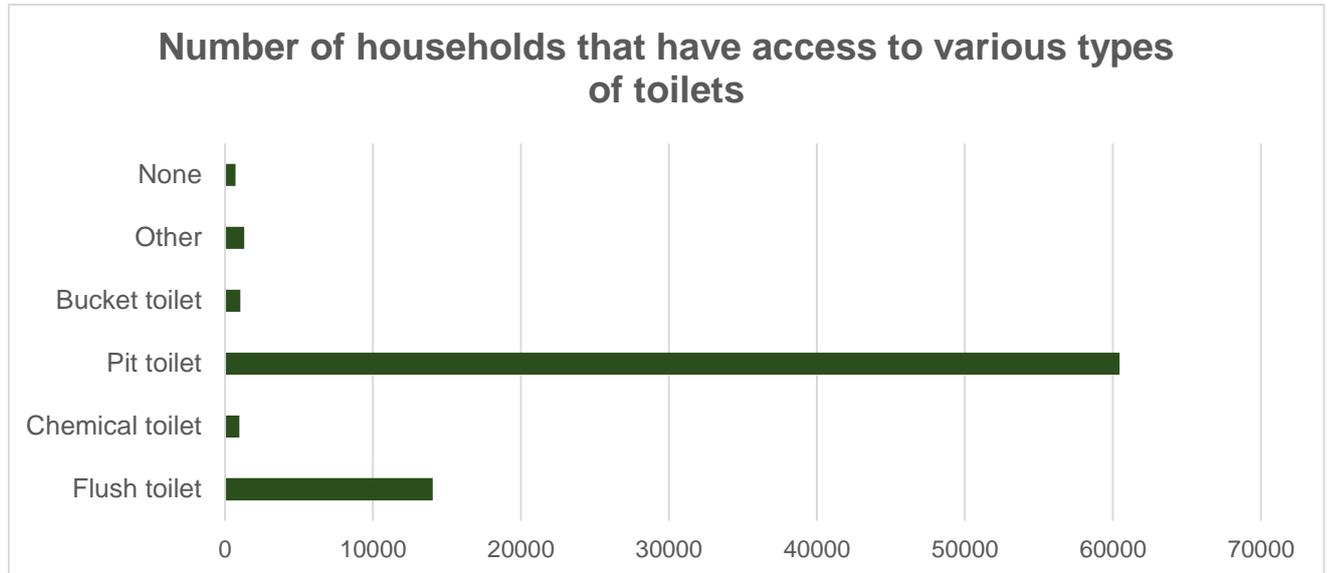


Figure 9: Graph showing the Makhuduthamaga Local Municipality household access to toilet

### 1.7.3 Access to Formal Housing

The households with access to formal dwellings within the municipal area were estimated at 96.37 in 2021. The percentage of households with access to formal dwellings was 83.92% on average over the period 2017 to 2021. This is higher than the value for the district of 82.24% on average, higher than the value for the province of 80.47% on average and higher than the value for the country of 72.97% on average over the period. The below table highlight the access to housing from 1993 to 2021.

Location	Access to formal housing (% of households)	Access to formal housing (% of households) average from 1993 to 2021	Access to formal housing (% of households) average from 2017 to 2021
MLM	96.37	83.92	95.79
Sekhukhune DM	95.47	82.24	94.87
Limpopo Province	96.19	80.47	95.59
South Africa	82.32	72.97	81.98

Table 17: Table showing the Makhuduthamaga Local Municipality household access to formal housing

## 1.8. Conclusion

The ITP is multi-faceted and diverse in its scope, however the guiding principles of accessibility, integration, coupled with access to services such as water, sewer, housing, and affordability provide the focus to achieve the common purpose of a well-planned and sustainable transport system for all.

The LITP provides strategies, policies and projects / programmes intended to meet community needs and to overcome prevailing challenges, through collaboration and consultation with spheres of governments, adjoining municipalities, public transport operators and business interests, as well as the community at large.

## 2. LAND TRANSPORT VISION, OBJECTIVES & STRATEGIES

### 2.1 Introduction

Section 31 of the NLTA, 2009 provides the general principles that transport planning must be integrated with land development and land use planning processes. The municipal ITP must give structure to the function of municipal planning as mentioned in Part B of Schedule 4 of the Constitution and must be accommodated in and form an essential part of the Integrated Development Plan (IDP) of the Municipality, having due regard to applicable local government legislation.

The Provincial Land Transport Framework (PLTF) provides an overall guide to transport planning in the province, in line with the National Land Transport Strategic Framework, 2015 (NLTF), and the ITP for the MLM should provide input to the PLTF from the local municipality's perspective. The inter-relationship between these plans and frameworks is illustrated in the below figure. The relationship between the LITP and other statutory frameworks is illustrated below.

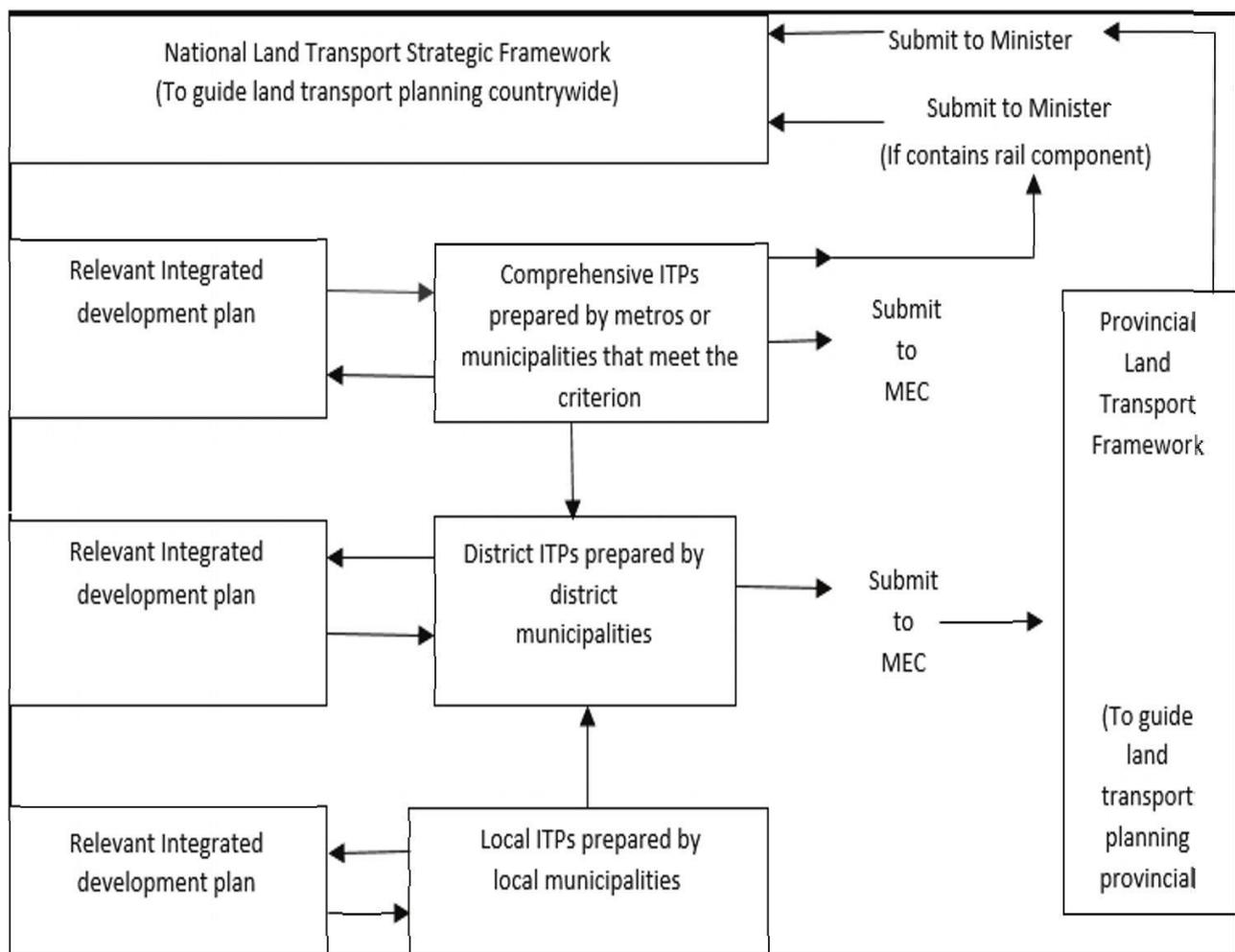


Figure 10: Image showing the relationship between the LITP and other statutory frameworks

The development of the MLM Integrated Transport Plan should be guided by the prescripts of the different policies enacted in different spheres of government.

## 2.2 National Context

### 2.2.1. White Paper on National Transport Policy, 1996

The White Paper on National Transport Policy, initially issued in 1996, underwent significant evolution and was amended in 2021. This revision, initiated by the Department of Transport in 2015, aims to enhance public transport safety, security, reliability, and efficiency. The policy emphasizes aligning safety measures with international standards, particularly for road and rail public transport, and commits to empowering marginalized users through improved Non-Motorized Transport (NMT) infrastructure.

The broader aspiration involves active engagement in cross-sectoral policymaking to address the demand for transportation, emphasizing vertical integration. The policy focuses on public transport, aiming for a safe, reliable, effective, and environmentally friendly system, with key objectives including accommodating diverse user needs and increasing public transport and NMT utilization over private vehicles.

The policy addresses the current lack of reliable and high-quality transport for many South Africans by redirecting infrastructure investments from private to public transport and ensuring universal access.

**Implication: The proposed MLM ITP should be reliable, sustainable, accessible, safe and efficient to the municipal resident. Equity should be one of the critical elements to be considered.**

### 2.2.2. National Land Transport Strategic Framework, 2023-2028

The National Land Transport Strategic Framework, applicable from 2023 to 2028, serves as a guiding document for constitutional objectives in land transport planning in South Africa. It supersedes the 2017-2022 framework and is a key initiative by the Department of Transport.

The framework integrates with various strategic plans, including NATMAP 2050 and the National Development Plan, regulating activities in the transport sector. Chapter 5 emphasizes transport safety and security, envisioning a safe and efficient road transport system for all users, with a focus on visible policing in urban areas to enhance safety for passengers, pedestrians, and cyclists. The strategy also highlights the importance of infrastructural enhancements to create a safer environment.

The NLTSF is a comprehensive framework covering various functional areas, including integrated land use and transport planning, urban transport, universal accessibility, rural transport, public transport, non-motorized transport, learner transport, freight transport, transport infrastructure, cross-border transport, transport safety and security, institutional management, and funding. The success of achieving objectives depends on implementing transport programs and projects aligned with PLTFs and ITPs, reflecting key performance areas defined in the NLTSF. While not prescriptive, the NLTSF is flexible, allowing stakeholders to adopt its intentions and guidance according to local needs and circumstances.

**Implication: The proposed MLM ITP should be integrated, sustainable, accessible, safe and inclusive. The transport planning should ensure mobility options, socially includes all communities and preserves the environment”.**

### 2.2.3. Spatial Planning Land Use Management Act, 16 of 2013

Examining the Spatial Planning Land Use Management Act (SPLUMA) is crucial for governing planning practices and infrastructure allocation. SPLUMA, enacted in 2013, establishes a framework for inclusive, developmental, equitable, and efficient spatial planning across government spheres. Our focus is on two guiding principles—spatial justice and good administration. Spatial justice aims to rectify historical imbalances by improving land access and utilization, especially in disadvantaged areas relying on public transport. Good administration calls for integrated approaches, aligning land uses with spatial planning, and emphasizes clear policies, legislation, and procedures for informed public participation.

SPLUMA's other principles include spatial sustainability, spatial efficiency, and spatial resilience, addressing sustainable land use, optimized resource utilization, and flexibility in spatial plans for resilience to economic and environmental shocks.

**Implication: The proposed MLM ITP should include the principles outlined within the SPLUMA, to ensure access to affordable, reliable and safe public transport irrespective of the nature of the municipality. Addresses historical spatial imbalances and the integration of the principles of sustainable development into land use and planning. Provides regulatory tools and legislative instruments**

### 2.2.4. Public Transport Strategy and Action Plan, 2007

In March 2007, the Cabinet sanctioned the adoption of a Public Transport Strategy, which outlined a phased implementation of Integrated Rapid Public Transport Networks (IRPTNs). The strategic objective was to establish operational systems in 12 urban centers and a minimum of 6 rural districts by the year 2014. The overarching vision, extending until 2020, aimed to create a network that would position over 85 percent of a metropolitan city's populace within a 1-kilometer radius of an IRPTN trunk (road and rail) or feeder (road) corridor.

However, over the past decade since the launch of the Strategy, progress has been considerably gradual. As of March 2017, precisely a decade after Cabinet approval, elements of IRPTNs were only evident in three cities, with plans for implementation in other locations. This sluggish advancement can be largely attributed to resistance from minibus-taxi operators. Furthermore, the experiences in Johannesburg and Cape Town have underscored that operational costs are higher, and fares income lower, than initially forecasted.

These challenges necessitate a thorough reassessment of the implementation approach, considering the identified impediments to progress and exploring alternative strategies to expedite the realization of the IRPTN objectives. (TBC).

**Implication: The proposed MLM ITP should accelerate the implementation of Rapid Public Transport Networks in the country. The plan should ensure that 85% of the population are within 1KM of an IRPT trunk (rail & road) or road corridor.**

### 2.2.5. National Transport Master Plan, 2050

The National Transport Master Plan 2050, approved by Cabinet Ministers in October 2016, is a comprehensive initiative by the South African government. It aims to establish a sustainable framework for public transport throughout the country, emphasizing safety, affordability, and accessibility.

The plan focuses on enhancing public transport systems to provide better, more frequent, and safer access, addressing issues related to inefficiency and unreliability caused by non-user-focused and non-integrated planning methodologies.

The plan includes as Moloto Rail Project, which include the project to extend New Moloto Rail corridor.

**Implication: The proposed MLM ITP should ensure that planning of public transportation include efficient, seamless integration, high quality, reliable, and safe. The municipality should continuously upgrade the infrastructure and services ahead of demand in an innovative, economically and flexible manner.**

#### 2.2.6. Non-Motorised Transport Guidelines, 2014

The new NMT Guideline aims to enhance safe planning and design for pedestrian, bicycle, and low-carbon transport modes along roads. Aligned with various acts and plans, it emphasizes improving bicycle and pedestrian facilities for NMT user safety. Linked to previous guidelines, it adopts a balanced approach in urban space design for NMT users. Prioritizing vulnerable users and universal access, the guideline seeks to rectify safety and sustainability challenges faced by NMT users.

The overarching goal is integrated transport improvement, focusing on safety, reducing fatalities, creating universally designed infrastructure, and promoting equity. Chapter 5 details safety, addressing signage, wayfinding, lighting, personal security, and design principles. The guideline emphasizes prioritizing NMT in planning, with specific recommendations for location and layout based on contour lines, solar conditions, and watercourses.

**Implication: The planning and utilization of NMT within the municipal area should be encouraged and implemented in an integrated and sustainable manner. The NMT planning should include the factors of safe, reliable, accessible and high quality.**

#### 2.2.7. National Freight Transport Strategy (2023-2028)

The National Land Transport Strategic Framework (NLTSF) is mandated by the National Land Transport Act, 2009 (Act, No.5 of 2009), section 34, requiring the Minister to prepare it every five years. The NLTSF, covering 2023 to 2028, serves as the national five-year land transport strategy, guiding transport planning and delivery by the national government, provinces (through Provincial Land Transport Frameworks - PLTFs), and municipalities (through Integrated Transport Plans - ITPs).

The overarching vision is to establish an integrated and efficient land transport system that supports a thriving economy, promotes sustainable growth, provides safe and accessible mobility, socially includes all communities, and preserves the environment.

Constitutional implications for transport planning, related to safety, equality, dignity, and freedom of movement, are acknowledged nationally.

The NLTSF outlines strategic priorities aligning with the National Development Plan (NDP), NATMAP, and provincial and municipal plans. Its purpose is to serve as a five-year framework for integrated land use transport planning, enable NDP-guided land use and transport planning, provide

guiding principles, offer clarity on transport planning priorities, align transport with sustainable development, and enhance coordination between government spheres.

**Implication: The proposed MLM ITP should consider the importance of freight in transforming the municipal economies and be implemented in a sustainable manner.**

### 2.2.8. National Land Transport Act No 5 of 2009

The National Land Transport Strategic Framework guides land transport planning nationwide (2023-2028), replacing the 2017-2022 version. The Department of Transport leads in formulating transport strategies, collaborating with frameworks like NATMAP 2050 and provincial plans. The Act aims to transform the national land transport system, setting national standards. Municipalities, within their areas, develop land transport policies aligned with national and provincial guidelines.

The enact by-laws, coordinate with relevant departments, and serve as planning authorities. Municipalities also ensure transport plans' implementation, monitor performance, and engage in financial planning, emphasizing infrastructure rehabilitation and maintenance.

**Implication: The proposed MLM ITP emphasis the need to transform and restructure the public transportation of its residents. Uniformity of the public transport of all residence should be achieved.**

### 2.2.9. Government Gazette: Regulation No. 30506 dated 30 November 2007- National Land

Planning authorities are mandated to adhere to the minimum requirements outlined in this Schedule when preparing integrated transport plans. However, they are encouraged to undertake additional planning, within their budgetary and capacity constraints, to further advance the objectives of the Act. Compliance with any additional requirements set by the MEC is mandatory, and planning authorities may include information beyond the document's stipulations.

The Guidelines should guide the interpretation of these requirements, with preference given to following the outlined steps whenever possible, and mandatory compliance when explicitly required by the stated requirements. In case of conflict between the document's requirements and the Guidelines, the document's requirements take precedence. Three types of planning authorities are identified for land transport planning purposes:

- Comprehensive integrated transport plans are required for the 12 cities involved in the Department of Transport's integrated public transport network initiative (IPTNPs), and any other authority designated as such by the MEC or Minister.
- District municipalities must prepare a District Integrated Transport Plan (DITP), incorporating a local municipality's CITP if available.
- All other local municipalities must prepare a Local Integrated Transport Plan (LITP). Type 2 and Type 3 authorities have the flexibility to prepare CITPs if justified by the local transport situation.

The responsibility for categorizing planning authorities into the three types lies with the MEC responsible for public transport or the Minister, in consultation with each other. This categorization should involve close consultation with all planning authorities and municipalities in the province, considering factors such as capacity, previous experience, public transport services, subsidization

levels, budget availability, and the potential status of a local municipality as an "aspirant metro" per the Public Transport Strategy and Action Plan.

**Implication: The Gazette outlines processes and methods to be followed in the development/compilation of the spheres of government ITPs. The MLM should prepare Type 3 LITP.**

#### 2.2.10. Public Transport Strategy, 2007

The Draft Public Transport Strategy, approved by South African Cabinet Ministers in October 2006, focused on Integrated Rapid Public Transport Networks and Accelerated Modal Upgrading. Implemented in 2007, the strategy aimed to transform the public transport network into a user-friendly, high-quality system. It spanned three phases, emphasizing efficiency, affordability, and accessibility for special needs users.

The strategy advocated for Non-Motorized Transport (NMT) investment, recognizing its role in enhancing accessibility. Integrated networks were deemed crucial for livable cities, urban renewal, and land use development. The strategy aimed to enhance the user experience through safety, reliability, convenience, and comfort, introducing integrated rapid public transport networks (IRPTNs) to improve services for over half the country's population.

The phased extension included rail, Bus Rapid Transit (BRT), and taxi priority networks. The strategy focused on vehicle recapitalization, upgrading facilities, and ensuring fare and physical integration within the core network, promoting a user-friendly and convenient public transport system.

**Implication: The planning of MLM LITP should include the BRT, taxi networks, refurbishment of public transport facilities, safe environments and proper management.**

#### 2.2.11. Department of Transport Revised Strategic Plan, 2020 – 2025

The Department of Transport has introduced a Revised Strategic Plan (2020 – 2025) aimed at leveraging transportation for economic growth and job creation, aligning with the White Paper on Transport Policy. Safety is prioritized as a key element for effective service delivery, and the plan focuses on cultivating public transport for social empowerment and economic benefits. The policy emphasizes the development of transport infrastructure to stimulate economic growth and job creation.

It addresses security responsibilities in public transport, aligns with the National Road Safety Strategy, and commits to implementing measures to address gender-based violence. The policy recognizes the importance of modernizing public transport infrastructure for economic competitiveness and improving the quality of life for users.

Exploring technologies like Electric Vehicle Technology is identified for enhancing safety and efficiency, and the Department is actively strengthening its research capabilities for innovation in transport safety and performance.

**Implication: The MLM ITP should ensure that it is safe, accessible, linked to economic development and socio-economic factors of the population,**

#### 2.2.12. Moving South Africa

The Moving South Africa document presents the Action Agenda, a strategic framework spanning 20 years, designed to actualize South Africa's long-term transportation vision. It comprehensively outlines the vision, strategic challenges, rural transport strategy, and key targets aimed at improving rural transport services nationwide.

In Limpopo Province, there are approximately 2,470 settlements, predominantly clustered in former homeland areas such as Gazankulu, Venda, and Lebowa. The distribution of these settlements was primarily influenced by political dynamics rather than economic considerations, resulting in a constrained economic foundation for these regions.

The Spatial Development Framework for each district within Limpopo Province emphasizes critical facets. Despite an acceptable household income level of R15,600, over 70% of households in all districts earn less than R19,300 annually. Infrastructure deficiencies are notable, with sanitation meeting RDP standards for only 50% to 70% of the population, depending on the district. Moreover, over 50% of the population in certain districts lack water infrastructure meeting RDP standards. Many rural settlements also lack electricity infrastructure, and road conditions in these areas are inadequate.

The 2007 provincial spatial development framework underscored that most rural settlements in Limpopo Province are economically and demographically unsustainable. This leads to low-income levels and a scarcity of skills at the village level, resulting in stagnation. Consequently, residents often migrate to other provinces or commute to nearby towns for survival. Factors influencing the prevailing rural settlement pattern include inequitable land ownership, tenure insecurity, unsustainable land use practices, and sluggish land release for development.

**Implication: Public transport within the municipal area should consider the socio-economic levels of the communities without compromising the safety, accessibility, quality and sustainability.**

## 2.3. Provincial Context

### 2.3.1. Provincial Land Transport Framework, 2023

The Provincial Land Transport Framework (PLTF) is mandated by Clause 21 of the National Land Transport Transition Act (No. 22 of 2000) (NLTTA) and serves as the overarching five-year (2002 to 2007) land transport strategy for the province of Limpopo. This comprehensive framework outlines strategies and actions across 11 functional areas to guide land transport initiatives, including those pertinent to rural transport development. Key strategies discussed within the framework encompass various aspects of land transport, aiming to enhance efficiency, accessibility, and safety within the transportation network.

Among the strategies outlined in the PLTF are the establishment of the Limpopo Transport Coordination Committee (LIMTCC) to oversee transportation initiatives in the province and the formation of the Transport Advisory Committee under the leadership of the MEC. Additionally, efforts are focused on coordinating both inter-provincial long-distance and short-distance public transport services, improving public transport operations by enhancing on-time performance, providing schedules, reducing travel times, ensuring vehicle cleanliness, and enhancing information availability at transport facilities.

The framework also emphasizes the formalization and subsidization of the taxi industry, the development and promotion of Non-Motorized Transport (NMT), and the enhancement of public transport infrastructure. Initiatives such as the implementation of automated fare control systems, subsidization of long-distance taxi trips, and the establishment of simplified cash fares are prioritized to improve accessibility and affordability of public transportation. Moreover, measures including the installation of lay-bys and shelters along transport routes, segregation of pedestrians from vehicular traffic, and the provision of discounted fares for learners, students, and the elderly are proposed to enhance safety and inclusivity within the transport system.

Furthermore, the PLTF underscores the importance of promoting bicycle and pedestrian movement through the development of appropriate infrastructure, conducting route-specific research to tailor public transport services, and ensuring the accessibility of new transport facilities for persons with disabilities.

**Implication: Regulatory measures to control public transport operations and the development of the rail network for long-distance passengers are highlighted as essential components of the overarching land transport strategy for Limpopo Province.**

### 2.3.2. Limpopo in Motion 2003

The Limpopo in Motion serves as the transport strategy for the province, formulated in response to the national White Paper on National Transport Policy. Within the framework of the Limpopo Provincial Transport Strategy, several key strategies have been outlined to address rural transport planning needs.

These include enhancing the overall mobility of the people of Limpopo, improving passenger transport services for learners, elders, and disabled individuals, promoting accessible transport to bolster economic development and job creation, and advocating for the utilization of non-motorized transport methods in both rural and urban areas.

**Implication: Integrated and reliable transport system within the municipal area is required to include scholar transport, worker's transport, disabled facilities which is reliable, safe and environmentally friendly.**

### 2.3.3. Limpopo Freight Databank, 2011

The Limpopo Data Bank serves as a comprehensive resource offering information on various sectors within the province, including authorities, industries, aviation, cross-border activities, rail, and roads. While major freight pipelines are not identified within Limpopo, the data bank provides insights into significant pipelines nationwide. Additionally, maritime data from key ports like Richards Bay, Durban, Cape Town, and Maputo are included, offering detailed statistics on freight movements within the province, complemented by interactive maps for enhanced visualization.

These routes function as primary freight and logistics corridors, connecting the district's economic centres with significant provincial nodes and economic hubs such as Mookgopong, Mokopane, Polokwane, Lydenburg, and Middleburg. However, connectivity to the northeast is hindered by geographical barriers like the Klein Drakensberg and Strydpoortberge.

**Implication: Within the SDM, the transportation network primarily focuses on regional accessibility rather than local connectivity. Key arterial roads such as N11, R25, R33, R579, R555, R37, and R36 facilitate travel from east to west, ensuring vital regional linkages.**

**Notably, three main roads traverse the district in a northwest-southeast direction (N11, R579, and R37), along with another route running northeast-southwest (R555) and the R36.**

#### 2.3.4. Integrated Public Transport Networks in the Limpopo Province, 2007

The current public transport system in the area lacks integration among its different modes (Bus, Taxi, Rail, Non-motorized transport), resulting in a fragmented and unsustainable transport network. The National Department of Transport Public Transport Strategy 2007 outlines a vision for a seamless and integrated transport system with high-quality networks, a single rapid commuter service, and attractive mobility solutions for both current public transport and car users. However, the current system is characterized by poor service quality in terms of punctuality, reliability, and frequency. To achieve an integrated public transport plan, there is a need for well-designed services with good coverage, especially in areas lacking regular public transport. The current classification of public transport infrastructure is disjointed and not conducive to integration, as it is based on separately designed and designated facilities.

**The objectives of the Integrated Public Transport Networks are as follows.**

- **To create high-quality networks that are fully integrated.**
- **Single integrated rapid commuter service.**
- **Mobility solution that is attractive to both current PT users as well as current car users.**
- **Modal shift of 20% from car work trips to PT by 2020.**
- **Improved quality of PT to a level of service that is car competitive.**
- **Radical transformation of the PT service delivery system**

#### 2.3.5. Limpopo Employment Growth and Development Plan, 2009-2014

The Limpopo Employment, Growth, and Development Plan (LEGDP) serves as a crucial blueprint for addressing historical disparities and guiding strategic priorities outlined in the Medium-Term Strategic Framework. It provides a framework for collaboration among provincial government, municipalities, the private sector, and civil society to address deep-rooted challenges and foster economic growth capable of generating decent work and sustainable livelihoods, with the aim of halving unemployment by 2014. The province boasts significant agricultural, mineral, and tourism potential, with the mining sector emerging as a key driver of economic growth, particularly evident in the Dilokong Corridor's platinum mining and coal mining in Sekhukhune and Mokopane. Additionally, major projects like the Medupi coal-fired power station and Sasol Coal to Liquids petrochemicals industrial complex in the Waterberg District contribute to the province's economic landscape.

While the manufacturing sector and other tertiary sectors play a significant role in the national economy, their contribution to Limpopo's economy is comparatively lower. Despite challenges such as declining sectors and limited labour absorption capacity, the provincial economy has demonstrated steady growth over the years. As a predominantly rural province, initiatives like the Rural Safety Plan, developed following the Provincial Rural Safety Summit, aim to address safety

concerns and improve security in rural areas over the next five years, highlighting the province's commitment to holistic development and inclusive growth.

**Implication: The planning of transportation within the municipal area should be linked to the economic growth and be able to lift the standards and the quality of life of its residents.**

### 2.3.6. Limpopo Province Rural Transport Strategy, 2011

In the province, transportation costs pose a significant financial burden for many households, with approximately 30% of households spending more than 10% of their income on public transport. Notably, Sekhukhune District has a particularly high proportion, with over 40% of households exceeding this threshold, while Waterberg District has 13%. Conversely, 10% of households incurred no costs for public transport, but concerns persist over the high commuting expenses, particularly for low-income earners.

Regarding perceptions of public transport services, rural residents face challenges in transporting goods, mainly wood/firewood, groceries, water, and vegetables, often relying on wheelbarrows and hand-held carts. Limited or expensive public transport services, coupled with poor road conditions, present obstacles to travel. Safety concerns include crime, unsafe roads, and accidents, with taxis preferred for transport, followed by buses, perceived as safer than taxis. The role of trains in public transport requires re-evaluation.

In terms of non-motorized transport (NMT), walking is the primary mode in the province, with 4% of rural households walking for more than 30 minutes. However, infrastructure supporting walking is often inadequate. Men and children under 14 years prefer bicycles, while women older than 20 years tend to avoid this mode. Wheelbarrows also serve as a significant means of NMT in the region.

**Implication: Integration provision of transport systems is important to achieve the improved life and sustainable development.**

## 2.4. District Context

### 2.4.1. Sekhukhune Spatial Development Framework,

The review of the Sekhukhune District Municipality's Spatial Development Framework (SDF) aims to address spatial, environmental, and economic challenges in both urban and rural areas, aligning with the overarching goal of promoting balanced development and poverty reduction.

The municipality's vision is to be a

***"Development Oriented Leader in Service Delivery,"***

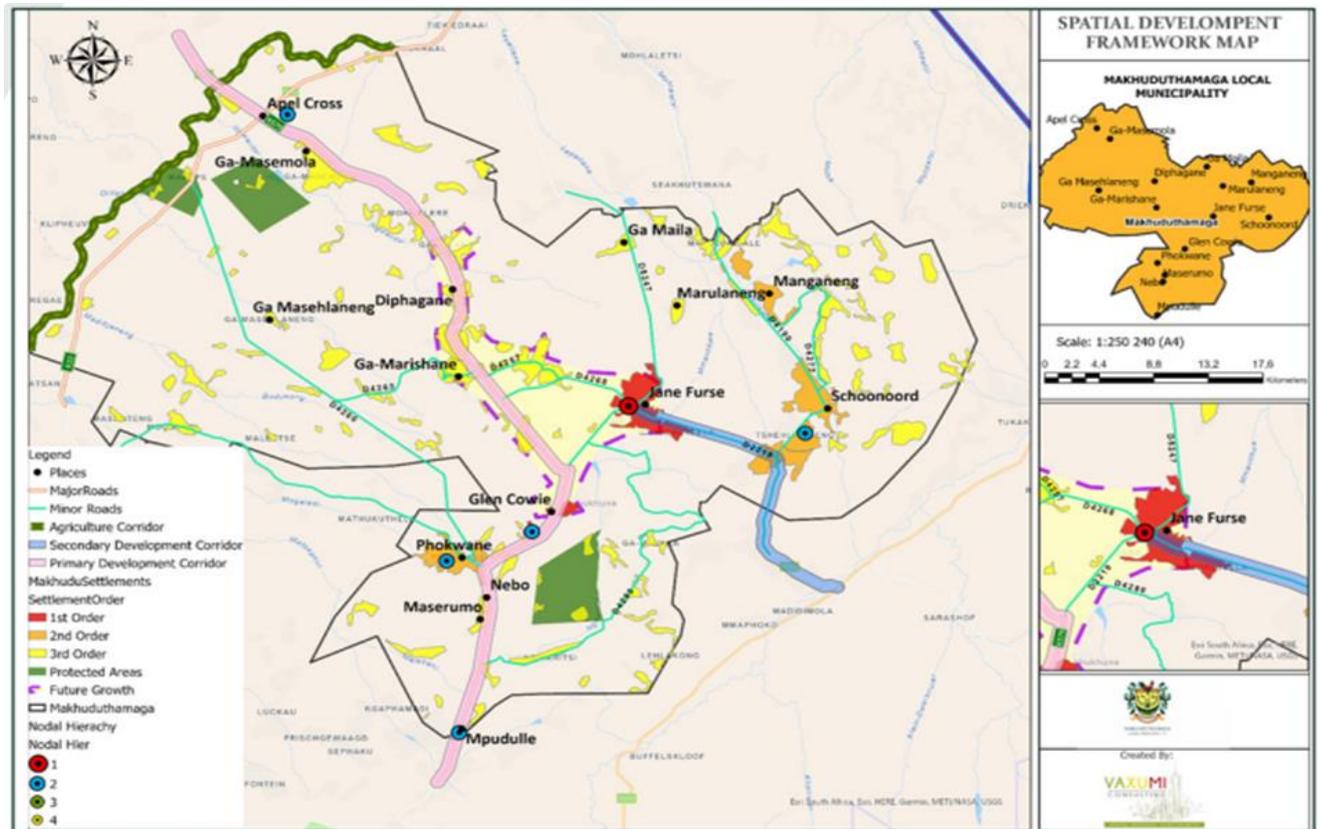
With a mission focused on providing integrated development solutions in partnership with local municipalities, communities, and stakeholders.

The spatial vision emphasizes consolidating government investment around prioritized urban and rural nodes, enhancing commercial opportunities in tourism meanders, promoting agrarian transformation, and maximizing economic benefits from mining activities.

In terms of transportation, road-based public transport services, predominantly buses and taxis, play a vital role due to the absence of commuter rail services. However, deteriorating road conditions and stormwater issues during the rainy season limit transport routes.

The Makhuduthamaga Local Municipality (LM) within the district features dispersed settlements, with primary access provided by secondary gravel roads.

**The LM's Spatial Development Framework aims to consolidate urban structure and development around five priority areas, including Jane Furse, Phokwane-Nebo-Maserumule, Apel Cross, Schoonoord-Ga-Mogasha, and Mathibeng-Malegale-Sebitsane.**



Map 3: Makhuduthamaga Local Municipality Spatial Development Framework Map

#### 2.4.2. Sekhukhune Integrated Development Plan 2021/22 – 2025/26

Integrated Development Planning (IDP) serves as a strategic tool for Sekhukhune District Municipality to achieve its developmental goals. The review of the 2021-2022 IDP involved extensive consultation with stakeholders and communities within the district's operational scope. Mandated by legislation, the IDP guides planning, management, and decision-making processes throughout the district, with the Municipal Systems Act (2000) providing the legal framework for municipal development planning.

In terms of transportation, the district primarily relies on buses, taxis, and trucks. These transport systems include both private and public bus companies, with private companies owned by individuals and public companies owned by government entities. Despite the absence of commercial airports, the district has two registered airfields in Groblersdal and Marble Hall, primarily used for emergency purposes and by local businesses, tourists, and farmers.

Public passenger transport in Sekhukhune is predominantly provided by buses and taxis. The taxi industry determines routes based on factors such as town and village locations, economic activities, and employment status within the district. However, transportation routes are often constrained by deteriorating road conditions and local stormwater issues during the rainy season.

A review of the Sekhukhune District's Current Public Transport Record (CPTR) and Integrated Transport Plan (ITP) in 2007 highlighted various aspects of public transport, including facility capacity, passenger waiting times, operational vehicles, and trip frequencies. The district does not currently have commuter rail services, as indicated by facility surveys conducted at taxi ranks, bus terminals, and train stations.

In Sekhukhune District Municipality, challenges include an oversupply of taxis along many routes, leading to competition among taxi operators for route usage. Additionally, light delivery vehicles are utilized for transporting learners, highlighting challenges in the transportation sector. The deterioration of road infrastructure further exacerbates these issues, compounded by a lack of facilities catering to heavy vehicles and inadequate signage. Moreover, there is a notable absence of alternative routes available for trucks, emphasizing the need for comprehensive transport planning and infrastructure development in the district.

## 2.5. Local Context

### 2.5.1. Makhuduthamaga Local Municipality Integrated Development Plan, 2024

Municipalities are mandated by the constitution to develop a five-year Integrated Development Plan (IDP), serving as a strategic tool for action and service delivery, surpassing other plans in local government. The IDP of Makhuduthamaga Local Municipality is aligned with its developmental objectives, including provincial and national government programs. It engages all municipal residents, guiding planning, management, budgeting, and decision-making processes. This inclusive approach empowers communities to participate dynamically in resource allocation, particularly in budgeting and strategic planning, thus enhancing customer satisfaction and service provision effectiveness.

Under the new administration, there's a comprehensive evaluation of factors impacting community life in Makhuduthamaga Local Municipality. Constitutional obligations drive the municipality towards a developmental role, prioritizing the basic needs of communities and promoting social and economic development. The IDP outlines a vision for the municipality's future in accordance with legislative requirements and constitutional principles.

The vision emphasizes democratic local governance, aiming to efficiently meet the needs of all residents, especially the marginalized, ensuring accountability, viability, and sustainable service delivery. Integrated development planning enables the municipality to identify key development priorities, formulate a clear vision, mission, and values, develop appropriate strategies, establish organizational structures, and align resources with development priorities.

**The Makhuduthamaga Local Municipality IDP envisions itself as a Catalyst of Integrated Community-Driven Service Delivery, striving for service excellence, robust community-based planning, and effective consultation and communication with all stakeholders. Both registered members and aspiring operators are expressing a significant demand for new operating licenses, leading to a surge in applications for the registration of new taxi associations. The escalating number of conflicts primarily stems from individuals engaging in operations without the required operating licenses.**

## 2.6. Alignment with the policy framework

The development of the Integrated Transport Plan (ITP) for the municipal area will be closely aligned with the overarching policies and strategies delineated in the above section.

These policies, emanating from national and provincial government bodies, as well as the Sekhukhune District Municipality, serve as guiding frameworks for the operation of The Local Municipality's Transport Sector.

By adhering to these directives, the municipality ensures harmonization with broader regional and national objectives, facilitating cohesive and integrated transport planning efforts that are responsive to the needs of the municipality's residents while also contributing to broader developmental goals at both provincial and national levels.

This alignment with the policy framework underscores the municipality's commitment to effective governance, strategic coordination, and sustainable development within its transport infrastructure and services.

The reviewed policies and legislations emphasize the importance of the following factors of public transportation within the municipal area.

- Affordable
- Accessible
- Comprehensive
- Connectivity
- Efficiency
- Environmental
- Effective
- Economical
- Frequent
- High quality
- Integrated
- Inclusive
- Living conditions

### 3. LAND TRANSPORT STATUS QUO

#### 3.1 Introduction

The Land Transport Status Quo report offers a comprehensive examination of the transportation landscape within the municipal area, addressing the current public transport issues, operational factors and its relationship.

The municipal area is characterized by its rural setting, notable mining industry presence, formal household structures, and the predominant land ownership under traditional authority jurisdiction. However, a significant challenge arises from the absence of registered land ownership by the municipality within its jurisdiction, impacting effective land use management and spatial planning. This deficiency has led to fragmented planning efforts and unverified development within the municipality. Despite these challenges, the municipality's transportation system remains integral to facilitating mobility, fostering connectivity, and driving economic activity for both residents and businesses alike.

#### 3.2. Overview of Road Infrastructure

As noted in the previous chapters of the report, two (2) major roads serve as the main links between municipality and the rest of its surrounding, namely:

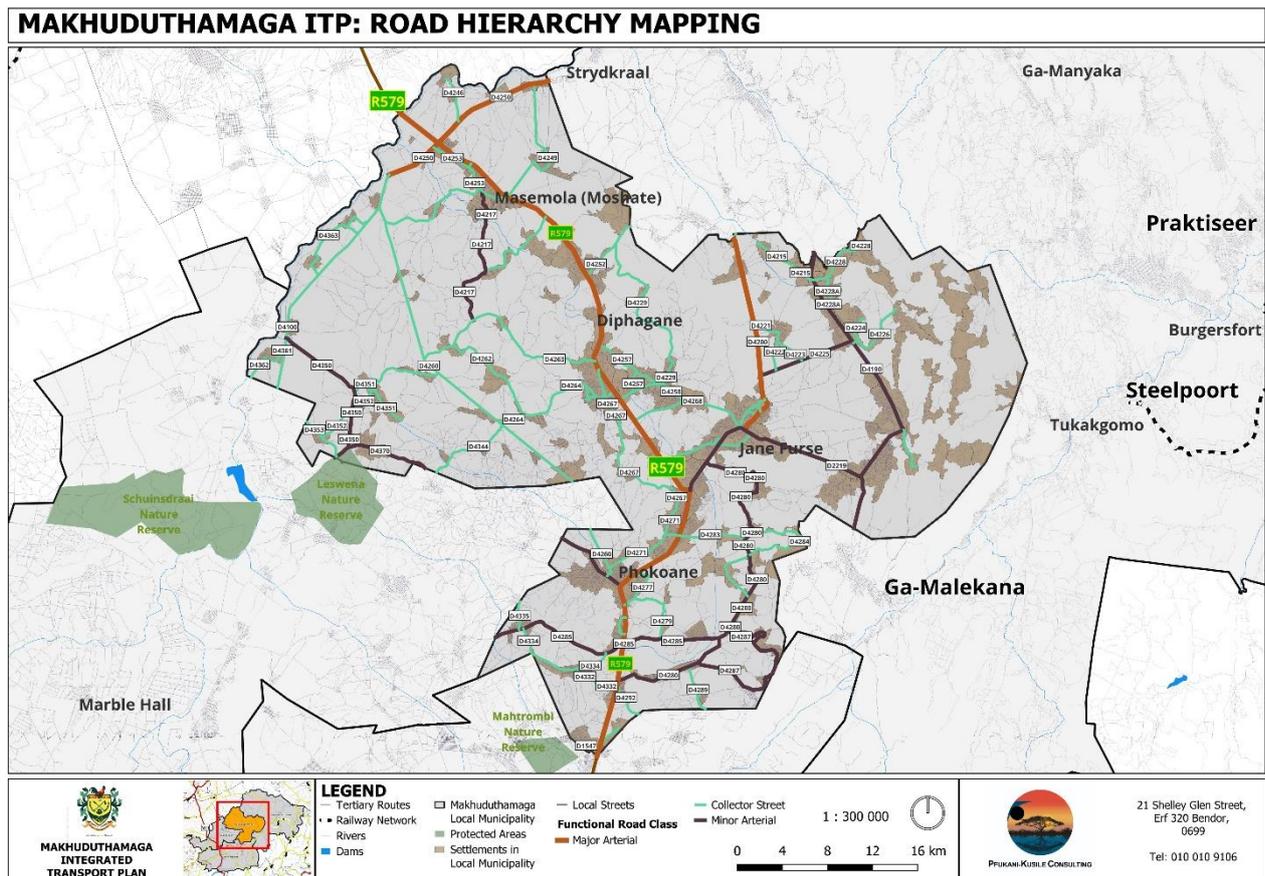
- R579 road which is a under the custodianship of SANRAL connects the municipality to Polokwane via Lepelle Nkumpi Local Municipality in Lebowakgomo in the north-western part of the municipal area.
- The R579 also connects the municipal area with Elias Motsoaledi Local Municipality in the southern part en route to Mpumalanga Province.
- D2219 connects the municipal area with Fetakgomo-Tubatse Local Municipality via Steelpoort.

The MLM routes with connector and distribution routes include the below:

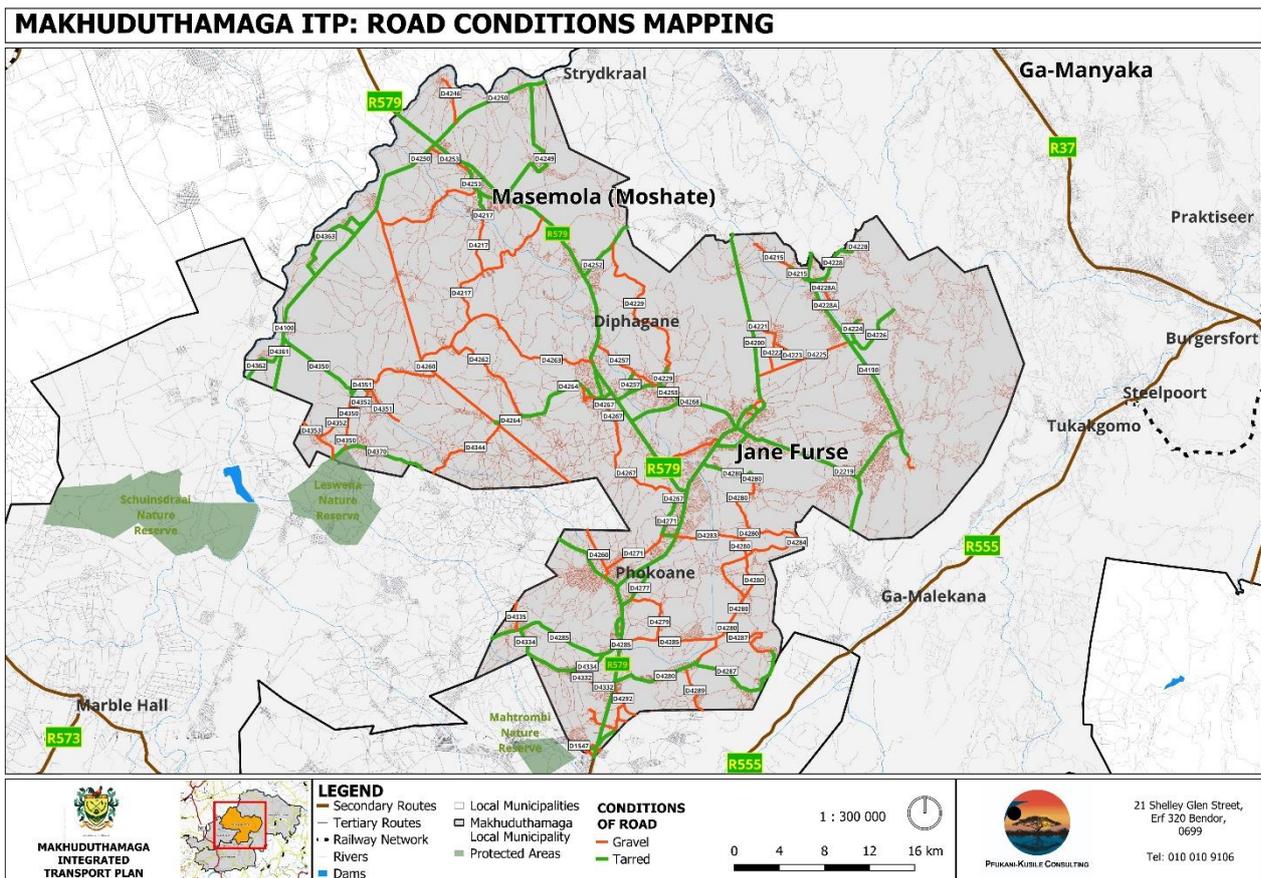
Road Network	Description of road network	Comments
Provincial Road R579	Main provincial arterial	<ul style="list-style-type: none"> <li>• Linking the municipality with neighboring municipalities, provinces and the country.</li> </ul>
Arterial Routes Road: D4280, D4379, D4250, D4200, D2219	Primary arterial routes	<ul style="list-style-type: none"> <li>• primarily serve vehicular mobility, offering limited off-street access.</li> <li>• encircle districts, enabling external circulation and may traverse the district itself.</li> <li>• Facilitating regional traffic mobility and are characterized by their continuity across regional routes.</li> <li>• Due to their nature, the construction of lay-bys or other public transport facilities is generally not feasible.</li> <li>• these routes also serve a public transport function.</li> <li>• In cases where the need for lay-bys or public transport facilities is identified, particularly in rural and peri-urban areas, a thorough traffic impact analysis should be conducted to inform decision-making.</li> </ul>

<p>Distributor and collector routes Roads: D4225, D4287, D4370, D4285, D4280, D4254, D4217, D4350, D4267</p>	<p>Minor arterial roads, also known as collector roads,</p>	<ul style="list-style-type: none"> <li>• serve as internal vehicular circulation routes within the municipal area.</li> <li>• connect various destinations within the municipality and facilitate regional mobility, linking important places both within the municipality and to the wider region.</li> <li>• Unlike primary arterial routes, minor arterial roads typically allow for the construction of lay-bys or other public transport facilities.</li> <li>• Additionally, they play a key role in facilitating long-distance traffic mobility.</li> </ul>
<p>Internal roads: Collector and streets</p>	<p>The existing internal road hierarchy within the municipality is currently weak due to the informal nature of most villages, presenting challenges in establishing an appropriate hierarchy.</p>	<ul style="list-style-type: none"> <li>• The Spatial Development Framework (SDF) will offer proposals and guidelines, but detailed transport and movement studies will be necessary to address this issue.</li> <li>• Furthermore, the absence of street names at the local level further complicates the matter. Local collector roads fulfil dual roles as public transport routes and major pedestrian thoroughfares, necessitating the provision of taxi pick-up and drop-off points as a minimum requirement</li> </ul>

Table 18: Table showing a breakdown summary of the local routes of Makhuduthamaga Local Municipality



Map 4: Map showing the Road Hierarchy of the routes in Makhuduthamaga Local Municipality



Map 5: Map highlighting the Road Conditions of the roads in Makhuduthamaga Local Municipality

### 3.3. Overview of Public Transport

The transportation system within the MLM is multifaceted, comprising a mix of public transport services and modes catering to the diverse needs of the population, although there is notable room for improvement within this sector.

At the core of the system is the regular, daily public transport network, which includes minibus taxis, SUV type taxis, unregistered forms of transportation such as Light Delivery Vehicles which can access remote areas, unlike the minibus taxis and SUV taxis.

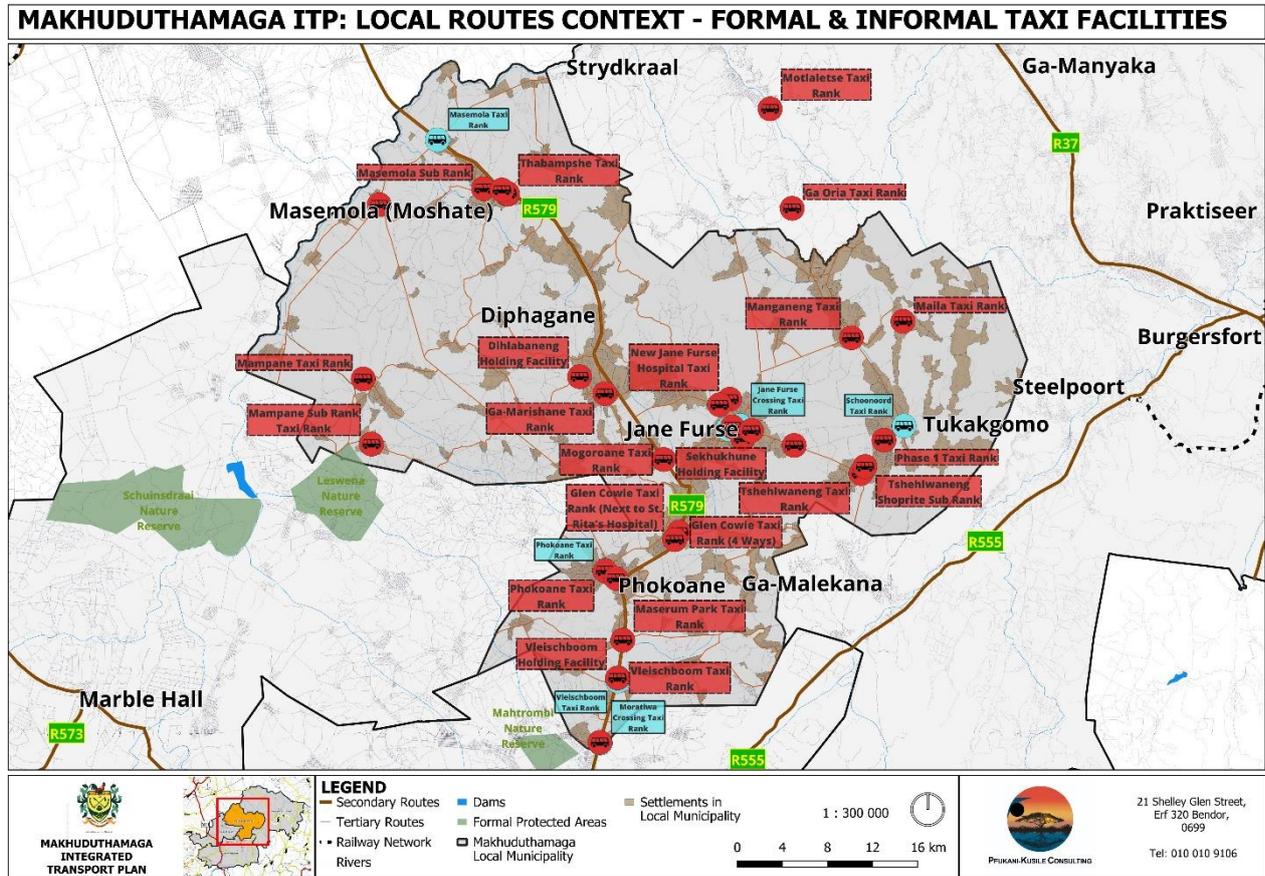
These services cater to specific needs within the community, ensuring accessibility and inclusivity across various demographics and mobility requirements. These services form the backbone of commuter travel within the municipality, providing essential connections between residential areas, commercial centers, and other key destinations in and outside the municipal area.

It is important to note that this information was deduced from the site visits, however upon further investigations, some ranks are neither formal nor informal, but rather they are binding spots with specific operating hours. The below table highlight the operating time discrepancies:

No	Taxi Rank	Comment
1	Manganeng Taxi Rank	○ Stops operating at 12h00
2	Maila Taxi Rank	○ Stops operating at 12h00
3	Motlaletse Taxi Rank	○ Stops operating at 17h00
4	Jane Furse Plaza Taxi Rank	○ Starts operating at 09h00
5	Jane Furse Crossing Taxi Rank	○ Starts operating at sunrise (due to a lack of lighting in the rank)

6	Masemola Taxi Rank	○ Starts operating at 09h00
7	Malope Taxi Rank	○ Stops operating at 12h00
8	Vleeschboom Taxi Rank	○ Is not operational, and it is abandoned however, the formal rank is operational

Table 19: Table showing various public transport facilities discrepancies within Makhuduthamaga Local Municipality



Map 6: Map showing the Formal and Informal Taxi Facilities in Makhuduthamaga Local Municipality

### 3.4. Status of Taxi Operations & Facilities within the Municipality

There is a notable lack of formal public transport facilities, including essential amenities, in several key nodal areas. Additionally, the poor condition of roads significantly increases operational and maintenance costs for public transport operators. Furthermore, there is a lack of integration among various transportation modes, particularly in the primary node of Jane Furse.

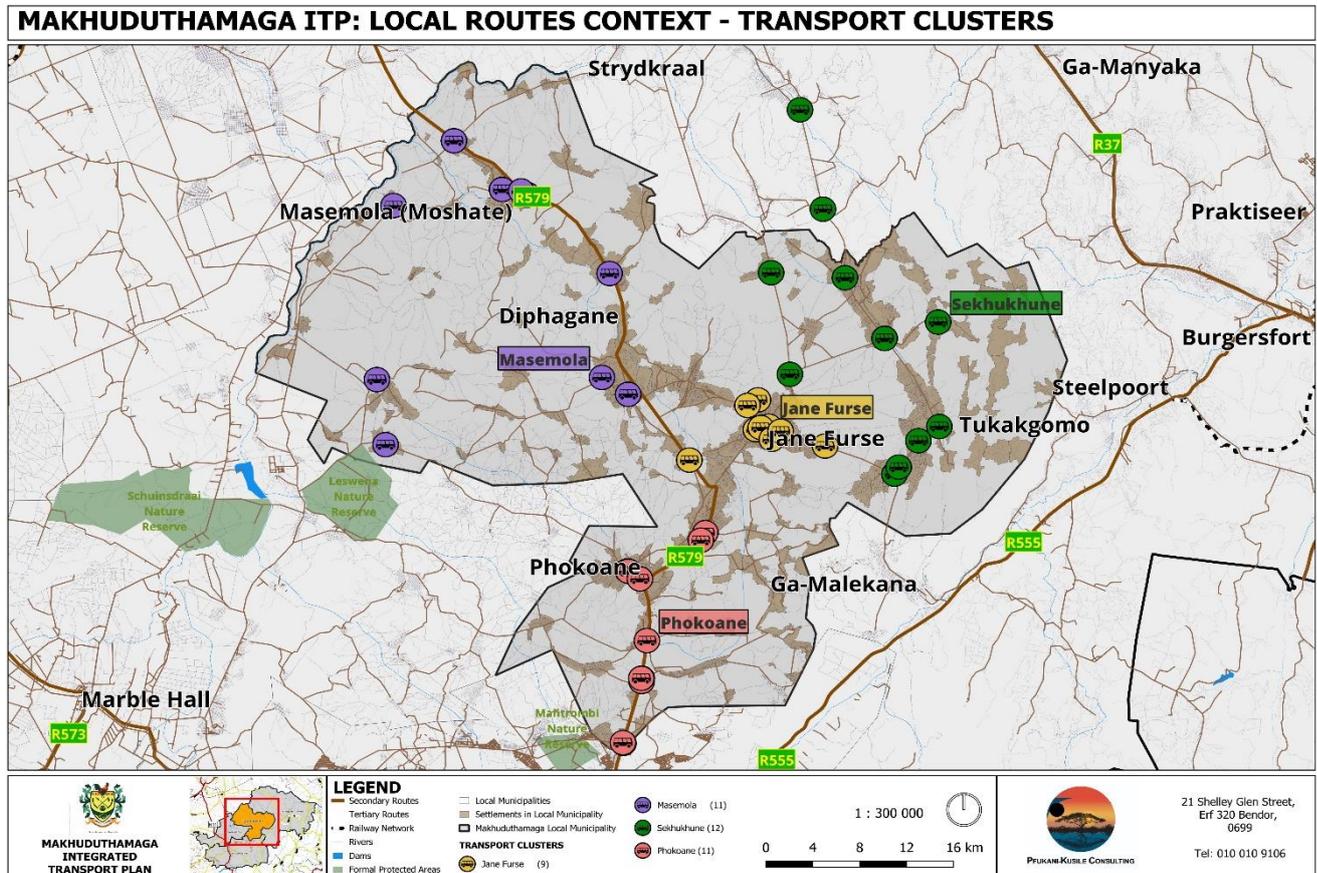
#### 3.4.1. Taxi Associations within the municipal area.

There are several minibus taxi operators in the municipality, and they include the below:

PUBLIC TRANSPORT CLUSTERS	TAXI ASSOCIATION OPERATING IN CLUSTER
Jane Furse Cluster	<ul style="list-style-type: none"> <li>• Sekhukhune Local Taxi Association</li> <li>• JPTA</li> <li>• Johannesburg Jane Furse Long Distance Association</li> <li>• Jane Furse Springs Germiston Taxi Association</li> <li>• Jane Furse Polokwane Taxi Association</li> </ul>
Masemola Cluster	<ul style="list-style-type: none"> <li>• Ga Masemola Taxi Association</li> <li>• Marishane Taxi Association</li> </ul>

	<ul style="list-style-type: none"> <li>Mampane Taxi Association</li> </ul>
Phokwane Cluster	<ul style="list-style-type: none"> <li>Nebo Taxi Association</li> </ul>
Sekhukhune Cluster	<ul style="list-style-type: none"> <li>Sekhukhune Local Taxi Association</li> </ul>

Table 20: Table showing the minibus taxi associations that exist in Makhuduthamaga Local Municipality



Map 7: Map showing the various transport clusters within Makhuduthamaga Local Municipality

### 3.4.2. Taxi Facilities within the municipal area.

The below table highlight all the transport facilities available within the municipal area as per the cluster.

Cluster	Taxi Facility	Facility Status
<b>Jane Furse</b>		
Jane Furse	Jane Furse Crossing Taxi Rank	Formal
	Mashadi Plaza Taxi Rank	Formal
	New Jane Furse Hospital Taxi Rank	Informal
	Mogoroane Taxi Rank	Informal
	Jane Furse Holding Facility	-
	Sekhukhune Holding Facility	-
	Jane Furse New Hospital Holding Facility	-
	Jane Furse Holding Facility A	-
<b>Sekhukhune</b>		
Sekhukhune	Schoonoord Taxi Rank	Formal
	Tshehlwaneng Taxi Rank	Informal
	Malegale Taxi Rank	Informal
	Maganeng Taxi Rank	Informal

	Motlaletse / Sekhukhune Taxi Rank	Informal
	Maila Mapitsane Taxi Rank	Informal
	Ga Oria Taxi Rank	Informal
	Phase 1 Taxi Rank	Informal
	Tshehlwaneng Shoprite Sub Rank	Informal
Phokwane	Phokwane Taxi Rank	Formal
	Glen Cowie Taxi Rank (Next to St Rita's Hospital)	Informal
	Moratiwa Crossing Taxi Rank	Formal
	Glen Cowie Taxi Rank (4 Ways)	Informal
	Maserumule Park Taxi Rank	Informal
	Moratiwa Crossing Taxi Rank – Outside	Informal
	Vleeschboom Taxi Rank	Informal
	Vleeschboom Taxi Rank	Formal
<b>Masemola</b>		
Masemola	Masemola Taxi Rank	Formal
	Masemola Sub Rank	Informal
	Thabampshe Taxi Rank	Informal
	Mphanama Cross Taxi Rank	Informal
	Marishane Taxi Rank	Informal
	Mampane Taxi Rank	Informal
	Mapmpane Sub Rank Taxi Rank	Informal
	Malope Holding Facility	-
	Masemola Sub Rank B1	-
	Masemola Sub Rank B2	-
	Dihlangeng Holding Facility	-

Table 21: Table showing Jane Furse taxi facilities in Makhuduthamaga Local Municipality

### 3.4.2.1. Jane Furse Cluster

The below are within the Jane Furse Cluster.

#### a. Jane Furse Holding Facility (Behind Market Stalls)

This is an informal holding facility, located behind the Market Stalls. This facility can be accessed through these coordinates: 24°45'13.6"S 29°51'40.1"E and is close to the main town of Jane Furse. The following challenges have been noted:

- There are no water and sanitation facilities.
- The only shade available is from the tree.
- There is no shelter or seating area for the drivers to seat.
- Operating on an open space.

### JANE FURSE HOLDING FACILITY CONTEXT (BEHIND MARKET STALLS)



Map 8: Map showing Jane Furse Holding Facility



Figure 11: Image showing Jane Furse Holding Facility

#### b. Jane Furse Holding Facility A

This facility is within Jane Furse main town, and can be assessed through these coordinates: 24°45'24.9"S 29°52'40.2"E. The following challenges have been noted:

- This holding facility operates along the road which also impacts the movement of other cars.
- No shades
- No proper seating area.



Map 9: Map showing Jane Furse Holding Facility A



Figure 12: Image showing Jane Furse Holding Facility A

### c. Jane Furse Holding Facility B

This facility is within Jane Furse main town, and can be accessed through these coordinates: 24°47'28.8"S 29°58'26.1"E. This holding facility is in a good location as it is close to the road and a filling station.

The following challenges have been noted:

- Lack of proper shades for the taxis
- Lack of seating areas for the taxi drivers,
- The facility does not have running water and toilets.



Map 10: Map showing Jane Furse Holding Facility B



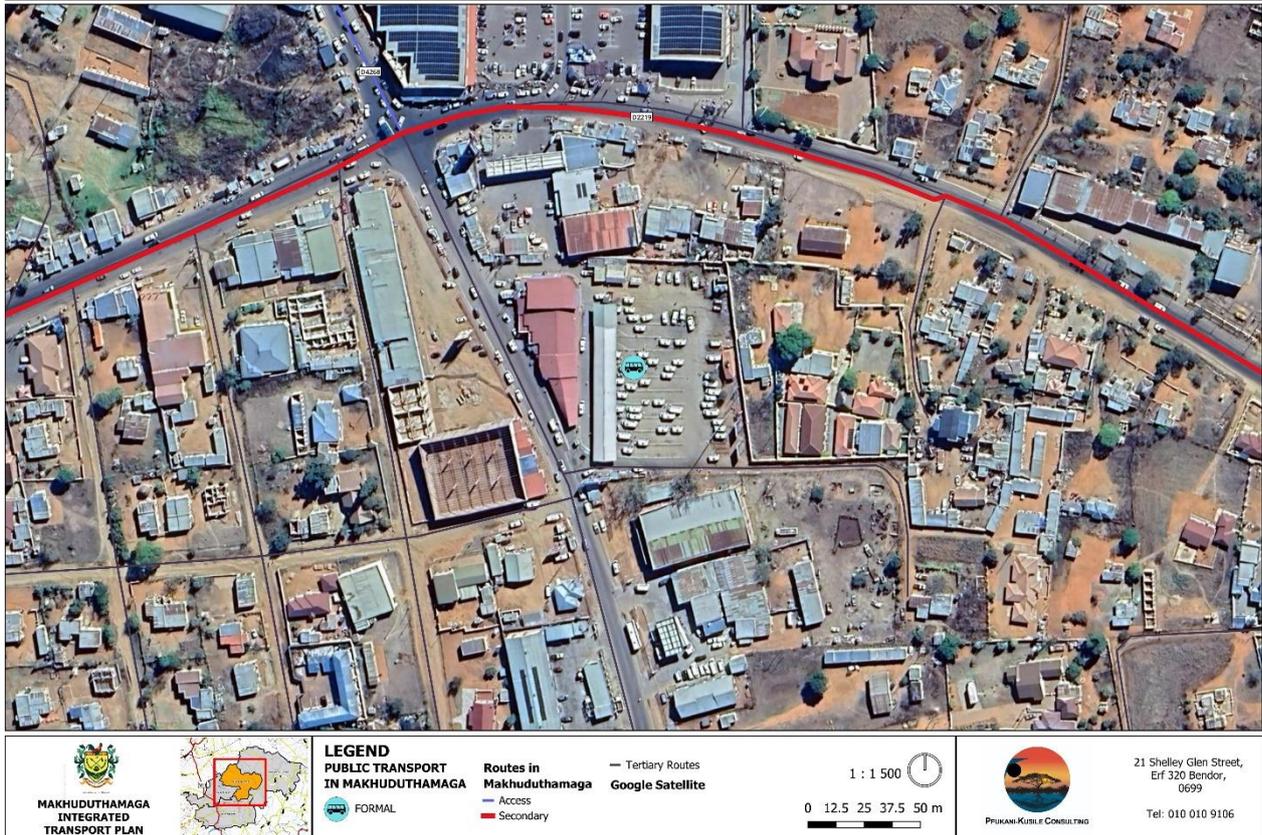
Figure 13: Image showing Jane Furse Holding Facility B

#### d. Jane Furse Main (Crossing) Taxi Rank

Jane Furse is the main taxi rank within the town, and can be accessed through these coordinates: 24°45'09.7"S 29°52'03.5"E. The following have been noted:

- This facility has an existing structure however it needs to be renovated,
- The platforms are big enough to accommodate the taxis, but the shade only protects the few first taxis on the platform, the rest are not accommodated.
- This facility lacks basic services such as running water and toilet facilities,
- There is also lack of seating or waiting areas in the rank.

### JANE FURSE MAIN (CROSSING) TAXI RANK CONTEXT



Map 11: Map showing Jane Furse Main Rank



Figure 14: Image showing Jane Furse Main (Crossing) Rank.

#### e. Jane Furse New Hospital Holding Facility

This is an informal taxi rank within the town near the hospital and can be accessed through these coordinates: 24°44'09.7"S 29°50'58.7"E. The following have been noted:

- This holding facility has no proper infrastructure,
- Taxis have no shade, and drivers have no seating area.
- Operating on an open space.



Jane Furse (Mashadi) Plaza Taxi Rank is within the Jane Furse Plaza in Jane Furse, and can be accessed through these coordinates: 24°45'20.0"S 29°51'23.6"E. The following have been noted:

- The taxi rank is very busy. There isn't enough space for all the activities taking place.
- There are shade facilities and toilet facilities, but not enough sitting facilities for commuters.
- The rank is contained within Mashadi/Jane Furse Plaza
- The maximum recorded number of taxis that we in the facility was 27
- The average recorded number of taxis that were in the facility was 20.5
- The maximum recorded number of taxis that were in the facility by the Sekhukhune (top) section was 9
- The average recorded number of taxis that were in the facility by the Sekhukhune section was 6.1
- The maximum recorded number of taxis that were in the facility by the Nebo (bottom) section was 5
- The average recorded number of taxis that were in the facility by the Nebo section was 2.7

**JANE FURSE (MASHADI) PLAZA TAXI RANK CONTEXT**



Map 13: Map showing Jane Furse Plaza Taxi Rank



Figure 16: Image showing Jane Furse Plaza Taxi Rank

### g. Mogoroane Taxi Rank

This is an informal taxi rank along the main road to Jane Furse, which can be accessed within these coordinates: 24°46'48.0"S 29°48'01.7"E. The following have been noted:

- There are no facilities or formal seating areas for the drivers and commuters in the area.
- Operating off the street
- The maximum recorded number of taxis that we in the facility was 6
- The average recorded number of taxis that were in the facility was 3.3



Map 14: Map showing Mogoroane Taxi Rank



Figure 17: Image showing Mogoroane Taxi Rank

#### **h. Sekhukhune Holding Facility**

The Sekhukhune Holding Facility can be accessed through these coordinates: 24°45'47.8"S 29°52'12.2"E. The following have been noted:

- Lack of shelters for the taxis and shades for the taxi drivers
- This facility does not have running water and toilets.
- This holding holds lot of taxis therefore the shelters must be big enough to accommodate the number of taxis utilizing the holding.



Map 15: Map showing Sekhukhune Holding Facility



Figure 18: Image showing Sekhukhune Holding Facility

### 3.4.2.2. Sekhukhune Cluster

#### i. Ga-Oria Taxi Rank

This is an informal taxi rank located within these coordinates: 24°34'41.6"S 29°54'48.4"E. The following have been noted:

- The taxi rank is in a good location however it lacks basic infrastructure and facilities,
- taxis stand on the side of the road with no shade from the harsh weather, this facility lacks basic services like water and toilets, seating areas are also not available for both passengers and taxi drivers.

- Operating along the King Sekhukhune Road.



Map 16: Map showing Ga-Oria Taxi Rank



Figure 19: Image showing Ga-Oria Taxi Rank

**j. Maganeng Taxi Rank**

The Maganeng Taxi Rank can be accessed through these coordinates: 24°40'55.7"S 29°57'55.8"E. The following have been noted:

- This facility is in a good area it is next to the main road and can easily be accessible, however there is no infrastructure in the facility, there is no platform, there is no shade and there is no running water and toilets.
- Operating on an open space.
- The maximum recorded number of taxis that we in the facility was 9
- The average recorded number of taxis that were in the facility was 4.9

**MANGANENG INFORMAL TAXI RANK CONTEXT**



Map 17: Map showing Manganeng Taxi Rank



Figure 20: Image showing Manganeng Taxi Rank

### k. Motlaletse / Sekhukhune Taxi Rank

The Sekhukhune Taxi Rank within Motlaletse settlement can be accessed within these coordinates: 24°29'52.3"S 29°53'38.8"E. The following have been noted:

- This facility is informal but well situated.
- It lacks proper basic services like toilets and clean drinking water.
- It also has no shelter.
- The maximum recorded number of taxis that we in the facility was 11
- The average recorded number of taxis that were in the facility was 3.4

#### MOTLALETSE TAXI RANK CONTEXT



Map 18: Map showing Motlaletse Taxi Rank



Figure 21: Image showing Motlaletse Taxi Rank

**I. Phase 1 Taxi Rank**

This facility is still very much undeveloped, there is only one taxi that utilizes this facility, and this taxi takes people from the main road. The facility is within these coordinates: 24°45'51.7"S 29°59'39.1"E. The following have been noted:

- This taxi route does not have an existing operating license as the driver is just meeting the needs of the community,
- The facility does not have a shade, a platform, running water and toilets



Map 19: Map showing Phase 1 Taxi Rank



Figure 22: Image showing Phase 1 Taxi Rank

**m. Schoonoord Taxi Rank**

The Schoonoord Taxi rank is located within Schoonoord and can be accessed through these coordinates: 24°40'55.7"S 29°57'55.8"E. The following have been noted:

- This ranking facility already has existing platforms however they need to be renovated as some of these shades are rusty and have holes in them,
- This facility does not have seating areas for passengers as they wait for their taxis,
- There is no running water and toilets in this facility.
- This rank is being used by the bakkie drivers who ferry passengers to nearby villages, this bakkies do operate as taxis but they are not safe for everyday use.



Map 20: Map showing Schoonoord Taxi Rank



Figure 23: Image showing Schoonoord Taxi Rank

**n. Tshehlwaneng Shoprite Sub Rank**

This sub rank is located next to a shopping centre which makes it very well situated within these coordinates: 24°47'08.7"S 29°58'38.7"E. The following have been noted:

- The facility has no running water, toilets,
- No platforms and even shades with waiting areas for the passengers.
- Operating on an open space.



Map 21: Map showing Tshehlwaneng Shoprite Sub Rank Taxi Rank



Figure 24: Image showing Tshehlwaneng Shoprite Sub Rank Taxi Rank

**o. Tshehlwaneng Taxi Rank**

This facility is situated in an ideal location, it is next to Tshehlwaneng Shopping Centre and passengers find the taxis with ease within these coordinates: 24°47'28.8"S 29°58'26.1"E. The following have been noted:

- The facility itself however needs to be developed, there is no proper shade for passengers as well as platforms for the taxis.
- The facility also lacks basic services like running water and toilets.



Map 22: Map showing Tshehlwaneng Taxi Rank



Figure 25: Image showing Tshehlwaneng Taxi Rank

### 3.4.2.3. Phokoane Cluster

#### p. Glen Cowie Taxi Rank (4 Ways)

The Glen Cowie Taxi Rank is an informal taxi rank, operating off the road at the 4-way stop, which can be accessed within these coordinates: 24°50'18.4" S 29°48'50.5"E. The following have been noted:

- The facility is not big enough to cater for commuters waiting in the area.
- There are no toilets, seating areas, or shade for commuters.





Figure 26: Image showing Glen Cowie 4ways Taxi Rank

#### q. Glen Cowie Taxi Rank (Next to St Rita's Hospital)

The Glen Cowie Taxi Rank is an informal taxi rank located near the St. Rita Hospital. The facility is operating along the R579 road, and can be accessed within these coordinates: 24°50'39.5"S 29°48'37.1"E. The following have been noted.

- Operating along R579 road.
- The only shade present is through the tree nearby. There are no seating areas, or formal shelter for commuters to wait.
- There are also no toilets, or water for commuters or drivers to use nearby.



- The average recorded number of taxis that were in the facility was 2.8



Map 25: Map showing Maserum Park Taxi Rank



Figure 28: Image showing Maserum Park Taxi Rank

**s. Moratiwa Crossing Taxi Rank**

Moratiwa Crossing Taxi Rank is located within the Moratiwa Crossing Shopping Centre in Monsterlus along the R579. The facility can be accessed through these coordinates: 25°00'27.4"S 29°44'41.0"E. The following have been noted:

- Only two bays used.
- Remaining bays used for holding.
- Facility is not well maintained.
- The pavements are uneven.
- There are toilet facilities, but they are not well maintained.
- The maximum recorded number of taxis that we in the facility was 6
- The average recorded number of taxis that were in the facility was 3.3



Map 26: Map showing Moratiwa Taxi Rank



Figure 29: Image showing Moratiwa Taxi Rank

#### t. Moratiwa Crossing Taxi Rank (Outside)

This is informal taxi rank located along the R579 outside the Moratiwa Crossing Shopping Centre. The facility can be accessed through the following coordinates: 25°00'25.8"S 29°44'39.5"E. The following have been noted:

- There is no formal pedestrian crossing to catch a taxi from the Shopping Centre. As a result, it is not safe for commuters.
- There is no formal waiting area for the taxis, they are located on the side lanes of the main road.
- The nearest toilet facilities are within the Moratiwa Crossing Formal Taxi Rank.
- The seating areas present are being used by street vendors.
- The maximum recorded number of taxis that we in the facility was 16
- The average recorded number of taxis that were in the facility was 11.3



Map 27: Map showing Moratiwa Taxi Rank (Outside)



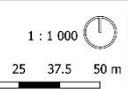
Figure 30: Image showing Moratiwa Taxi Rank (Outside)

**u. Phokwane Holding Facility**

The Phokwane Holding Facility is an informal facility with no infrastructure, operating/located along the road in Phokwane. The facility can be accessed through these coordinates: 24°52'32.2"S 29°45'31.5"E.

**PHOKOANE HOLDING FACILITY CONTEXT**



		<p><b>LEGEND</b></p> <p><b>PUBLIC TRANSPORT IN MAKHUDUTHAMAGA</b></p> <p>— INFORMAL</p>	<p><b>Routes in Makhuduthamaga</b></p> <p>— Access</p> <p>— Tertiary Routes</p>	<p>Google Satellite</p> <p>1 : 1 000</p> <p>0 12.5 25 37.5 50 m</p>		<p>21 Shelley Glen Street, Erf 320 Bendor, 0699</p> <p>Tel: 010 010 9106</p>
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Map 28: Map showing Phokwane Holding Facility

**v. Phokoane Taxi Rank**

Phokoane Taxi Rank is located within the Phokoane Shopping Centre along the R579 road. The facility can be accessed within these coordinates: 24°52'08.9"S 29°44'54.5"E. The following have been noted:

- The facility has a shelter, but no seating areas.
- There is no access to water.
- There is also an informal pit latrine toilet.



Map 29: Map showing Phokoane Taxi Rank



Figure 31: Image showing Phokoane Taxi Rank

**w. Phokoane Taxi Rank (Informal)**

The informal taxi rank is located, operating on the parking lot with no infrastructure or services, i.e., water, sanitation, seating areas, waiting zones, etc. This facility can be accessed through these coordinates: 24°52'09.8"S 29°44'56.6"E.

**PHOKOANE TAXI RANK (INFORMAL) CONTEXT**



Map 30: Map showing Phokoane Informal Taxi Rank



Figure 32: Image showing Phokoane Informal Taxi Rank

**x. Vleischboom Holding Facility**

Vleischboom Holding Facility is an informal facility operating on open space next to R579 Road with no infrastructure or services, i.e., water, sanitation, seating areas, waiting zones, etc. This facility can be accessed through these coordinates: 24°57'19.5"S 29°45'35.8"E.

**VLEISCHBOOM HOLDING FACILITY CONTEXT**



Map 31: Map showing Vleischboom Holding Facility



Figure 33: Image showing Vleischboom Holding Facility

#### y. Vleischboom Taxi Rank

The Vleischboom Taxi Rank is located within the Vleischboom shopping complex at Ga-Nkoana, and can be accessed through these coordinates: 24°57'28.1"S 29°45'36.7"E. The facility is not operating at all.

- There is no water
- The toilets have been vandalised
- The only shade available is from the tree.
- There is no shelter or seating area for the drivers to seat.

**VLEISCHBOOM TAXI RANK CONTEXT**



Map 32: Map showing Vleischboom Taxi Rank



Figure 34: Image showing Vleischboom Taxi Rank

**z. Vleischboom Taxi Rank (Informal)**

The informal Vleischboom Taxi Rank is operating outside the shopping complex with no infrastructure, and can be accessed within these coordinates: 24°57'19.3"S 29°45'36.9"E.

- There are no water and sanitation facilities.
- There is no shelter or seating area for the drivers to seat.

**VLEISCHBOOM TAXI RANK (INFORMAL) CONTEXT**



Map 33: Map showing Vleischboom Informal Taxi Rank



Figure 35: Image showing Vleischboom Informal Taxi Rank

**3.4.2.4. Masemola Cluster**

**aa. Dihlaganeng Holding Facility**

Dihlabaneng Holding Facility is an informal facility located in Schoonoord, within no infrastructure, operating under the trees. The facility can be accessed through these coordinates: 24°42'49.1"S 29°43'35.1"E.

- There are no water and sanitation facilities.
- The only shade available is from the tree.
- There is no shelter or seating area for the drivers to rest.



Map 34: Map showing Dihlabaneng Holding Facility



Figure 36: Image showing Dihlaganeng Holding Facility

**bb. Malope Holding Facility**

Malope Holding Facility is an informal facility operating along the road, accessed through these coordinates: 24°34'31.3"S 29°33'01.6"E.

- Lack of proper shades for the taxis
- Lack of seating areas for the taxi drivers,
- The facility does not have running water and toilets.
- The maximum recorded number of taxis that we in the facility was 6
- The average recorded number of taxis that were in the facility was 2.8





Figure 37: Image showing Malope Holding Facility

### cc. Marishane Taxi Rank

The Marishane Taxi Rank is informal facility within Marishane, operating on an open space. The facility does not have any basic infrastructure and basic services. The facility can be accessed through these coordinates: 24°43'38.3"S 29°44'55.6"E.

- There are no water and sanitation facilities.
- The only shade available is from the trees.
- There is no shelter or seating area for the drivers to sit.

**GA-MARISHANE TAXI RANK CONTEXT**



Map 36: Map showing Marishane Taxi Rank



Figure 38: Image showing Marishane Taxi Rank

### dd. Masemola Sub Rank

The Masemola Sub Rank is located within Masemola area. This facility has one platform with no proper infrastructure and services. The facility can be accessed through these coordinates: 24°33'44.2"S 29°38'32.1"E.

- There are no water and sanitation facilities.
- Shade is available under the shelter
- There is no seating area for the drivers or passengers to sit.



Map 37: Map showing Masemola Sub Rank



Figure 39: Image showing Masemola Sub Rank





Figure 40: Image showing Masemola Sub Rank B1

#### ff. Masemola Sub Rank B2

The Masemola Sub Rank B 2 is an informal holding facility situated right next to the main road which is accessible to the main rank. The facility does not have infrastructure or basic services. The facility is accessed through these coordinates: 24°33'58.6"S 29°39'48.1"E.

- There are no water and sanitation facilities.
- The only shade available is from the trees.
- There is no shelter or seating area for the passengers and drivers to rest.



Map 39: Map showing Masemola Taxi Rank



Figure 41: Image showing Masemola Taxi Rank

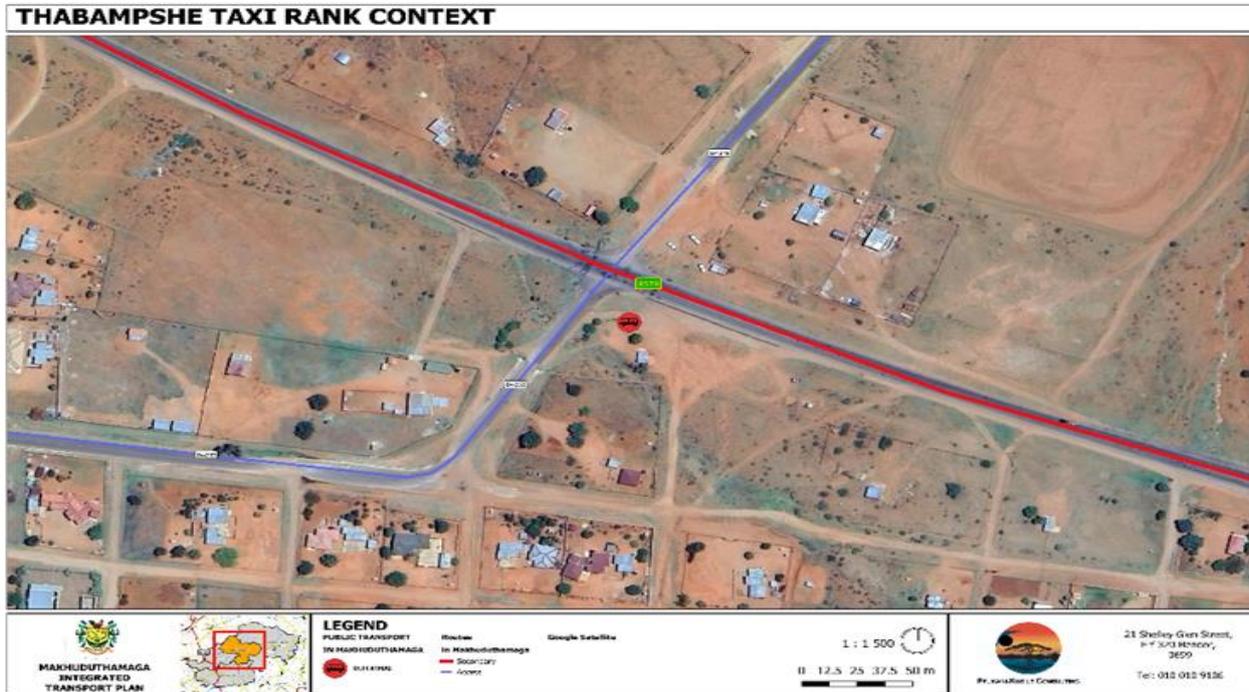
### gg. Masemola Taxi Rank

The Masemola Taxi Rank is a formal facility found within these coordinates: 24°31'22.2"S 29°36'04.9"E. The following have been noted:

- The facility needs some renovation as most of its infrastructure is old or damaged,



- This ranking facility is well situated but however it lacks proper shelters for taxis.
- It also lacks a passenger's waiting area as well as a shade.
- It also lacks market stalls, or any form of market integrated in the rank.
- This facility needs running water and toilets.



Map 41: Map showing Thabampshe Taxi Rank



Figure 43: Image showing Thabampshe Taxi Rank

### 3.5. Metered Taxi Operations

There are currently no metered taxi services operating within the municipal area. From the analysis and trends, there is a need to introduce and encourage metered taxi services within the main towns.

### 3.6. Bus Operations

The MLM lacks public bus transport operators within its jurisdiction. Contrary to the 2024/25 MLM Integrated Development Plan (IDP), the findings indicate that Great North Transport has ceased operations. Thembaletu Bus Transport (found within the municipal boundaries) operates outside the municipal borders.

The Sekhukhune Express, comprises of multiple operators like Sekhutuba Bus Association, are privately hired by mines to transport mine workers residing within the municipal area.

There are no public bus stations, depots or stops in the municipality.

### 3.7. SUV Taxis (6+1)

The SUV-type taxis have recently been approved and granted operating certificates to provide services within the municipal area.

This taxi type accommodates six passengers and one driver. The introduction of SUV-type taxis has phased out the previously unregulated 4+1 taxi type. The SUV type taxis operate within the below Taxi Associations:

- Jane Furse Maxi Taxi Association
- Lefata Taxi Association

The above-mentioned taxi associations should be confirmed to determine the legitimacy.

### 3.8. Light Delivery Vehicles

Due to the challenging terrain in certain parts of the municipality, standard minibus taxis and SUV-type taxis are unable to operate and transport the public effectively, primarily because of the mountainous conditions and unmaintained access roads. This has created a demand for alternative transportation methods to connect people from urban areas and other parts of the municipality to these inaccessible regions.

In response to this demand, residents initiated the operation of Light Delivery Vehicles (LDVs) to serve these areas. Although LDVs are not yet formally recognized by the municipality, they share a space at the Schoonoord Taxi Rank and primarily operate within the rural and mountainous terrains.

### 3.9. Learner School Transport

The municipality does not provide scholar transport for pupils/learners within its area of jurisdiction. Instead, scholar transport is managed privately by unregulated operators who often exceed the vehicle's capacity, typically using minibuses and bakkies.

Bakwena Bus Company, based within the municipal area, operates scholar transport in the province of Mpumalanga. This presents an opportunity to the Bakwena Bus Company to fully provide the services and be able to comply with relevant regulations.

The learner transport is the mandates of the provincial government, the information in terms of number of scholars and the facilities being provided within the municipal area will be incorporated into the document before approval.

### **3.10. Elderly and Disabled Persons Public Transport**

The current public transport system within the municipal area does not cater and not user-friendly for elderly and disabled persons. The general lack of public transport infrastructure in the area expounds the challenge. There are basically no public transport facilities available for disabled persons within the municipal area. The communities rely on private transport to ferry disabled members.

The following are the specific principles and objectives that must be achieved as part of the development of a strategy for addressing the needs of persons with disabilities:

- Proper information systems and communication structures (before and during the journey).
- Specialist transport services (e.g. dial-a-ride type services).
- The design of vehicles/rolling stock to allow for people with disabilities (special and normal vehicles).
- The road and transport signs should also accommodate elderly and disabled people.
- Special care during the design of public transport facilities, including ablution facilities.
- Ensuring access to public transport facilities and vehicles for the mobility impaired.
- Creating institutional and financial opportunities.

### **3.11. Miner Transport**

Mining is the largest contributor to the economy of the Sekhukhune District Municipality. While there are no mines within the municipal area, a significant portion of the mining workforce residing in the municipal area commutes to mines located in the neighbouring municipalities.

Mining companies within and around the district area have contracted Sekhukhune Express, which has subcontracted Sekhutuba a Express, a locally based bus. Sekhutuba Express is responsible for transporting miners from the municipality to their workplaces beyond its borders.

The miners heavily rely on these contracted bus services for their daily commute, as there is no direct public transportation available within the municipal area.

The only interaction some miners have with public transport, such as taxis, is when they travel from their residences to the designated bus stops where they catch the private buses to their workplaces.

### **3.12. Non-Motorized Transport**

Non-Motorized Transport (NMT) within the municipal area, is used as an alternative mode of transport, which is prevalent in the rural areas of the country. It emerged during the survey and consultation with municipal officials that these modes of transport play a significant role in conveying goods and people and a consideration is that they should be fully incorporated into the transport system of the municipality.

NMT infrastructure is present in Jane Furse but is currently inadequate. While there are pavements available for pedestrians, these are often poorly, and functional streetlights are scarce, making it challenging for NMT users to navigate safely, especially during evening hours.



Figure 44: Image showing the lack of pavements in Makhuduthamaga

Additionally, street hawkers frequently encroach upon these pavements, forcing pedestrians to walk on the roads designated for vehicles. This encroachment not only compromises the safety of NMT users but also exacerbates traffic congestion and heightens the risk of accidents. To enhance the safety and efficiency of NMT in Jane Furse, it is imperative to improve the maintenance of pavements, ensure the availability of working streetlights, and regulate the use of pedestrian walkways to prevent obstruction by street vendors.

It should be noted that in some parts of the Sekhukhune District Municipality the NMTs have been formalized as a recognized mode of transport which is in line with intermodals. However, there is a need for policy and strategy to promote the use of these modes. Municipality should prioritize public transport infrastructure to enhance its accessibility by the commuting community as currently not easily accessible and there were issues of safety. In remote areas that are located away from Burgersfort, there were no proper feeder routes that link with the provincial and national road network.

The quality of the pedestrian system and its facilities are equally important for commuters using public transport. There are significantly high pedestrian volumes within the main streets of the municipal area. There is a need for provision of sidewalks, improve access of municipality and district rural roads by way of community-based construction and maintenance projects (e.g. sidewalks, roads). Such improved transport infrastructure would be able to attract NMTs and thus contributing to the solid infrastructure that encourages seamless transport system.

To achieve optimal NMTs the public must be educated about the relationships between the modes and the following considered:

### 3.12.1. Bicycle use

Bicycle use is also recognized as one of the non-motorized transports and the following should be considered in the municipal planning:

- The rights and responsibilities of cyclists be defined by regulation; and these regulations must be enforced.
- The public should be informed of the social and personal benefits of bicycles relative to other modes for the relevant categories of trips.
- The local municipalities should encourage the provision of safe bicycle parking at schools, shopping centres and even at the workplace.
- Provide proper bicycle infrastructure and bicycle paths and lanes as these are the main infrastructure elements defining bicycle transportation as a distinct system.
- The local municipalities must prepare a plan that would encourage the use of bicycles and provide the necessary infrastructure.
- The provincial department of transport should launch a campaign to promote the use of bicycles as one mode of non-motorized transport and support the district and local municipalities with the construction of bicycle facilities.
- Contracted buses should incorporate bicycle racks to encourage commuters to utilize bicycles for part of their journey, where possible the departments of transport and education and the district municipalities should develop a non-motorized transport plan and meet the specific needs of learners in cases where pedestrian facilities, bicycles and donkey-cart transport are appropriate.

### 3.12.2. Pedestrian travel

Walking easily replaces many short vehicle trips within the municipal area and the country. Planning for pedestrian travel could include the following:

- There is a need to prioritize the provision and maintenance of sidewalks.
- Provide paths and sidewalks for basic safety and protection from motorized vehicles.
- Pedestrian planning must consider the enhancement of existing pedestrian systems or the provision of new ones.
- these should consist of safe and attractive sidewalks, independent walkways and, in recreational areas, campuses and major developments, networks of paths that are functional and aesthetically appealing.

### 3.12.3. Animal Cart

Animal transportation is one of the modes of Nonmotorized Transport (NMT), i.e., donkey carts. The Limpopo provincial government has been involved in promoting the use of donkey carts as a means of public transportation in rural areas. This initiative, particularly highlighted in districts like Sekhukhune, aims to address the lack of reliable transportation infrastructure in remote villages. The donkey cart project is part of broader efforts to improve access to essential services such as healthcare, education, and economic opportunities for residents who often face poor road conditions and limited access to motorized transport.

The project aligns with the National Rural Transport Strategy, which recognizes animal-drawn carts as a viable solution for rural transport challenges. The carts are intended to offer a low-cost, sustainable mode of transport, especially in areas where road infrastructure is inadequate or non-existent.

In partnership with the Society for the Prevention of Cruelty to Animals (SPCA), wooden animal-drawn carts will be introduced in each of the five other districts of Sekhukhune, Capricorn, Bohlabela, Mopani and Vhembe.

Cart owners will be taught how to take care of the animals and how to ensure that the carts are roadworthy, and the drivers are more visible to other road users.

The province also highlighted the need to access animal drawn carts for the other five districts to be registered and issued with a registration number. The registration number will assist in tracking down the carts in case of theft for identification. Furthermore, there are provisions for the maintenance of these carts for up to three years, ensuring their continued operation without imposing additional costs on the beneficiaries.

However, the initiative has also attracted criticism from some sectors. Concerns have been raised about the financial transparency of the project, with accusations of overpricing and mismanagement. Additionally, some opposition parties have expressed that investing in donkey carts reflects a lack of ambition for rural development, suggesting that efforts should instead focus on improving road infrastructure and introducing more modern transport options.

Within the municipal area, animal carts are visible, however, no data regarding the registrations and licenses issues.

### **3.13. Water Transport**

There is currently no mode of water transport within the municipal area.

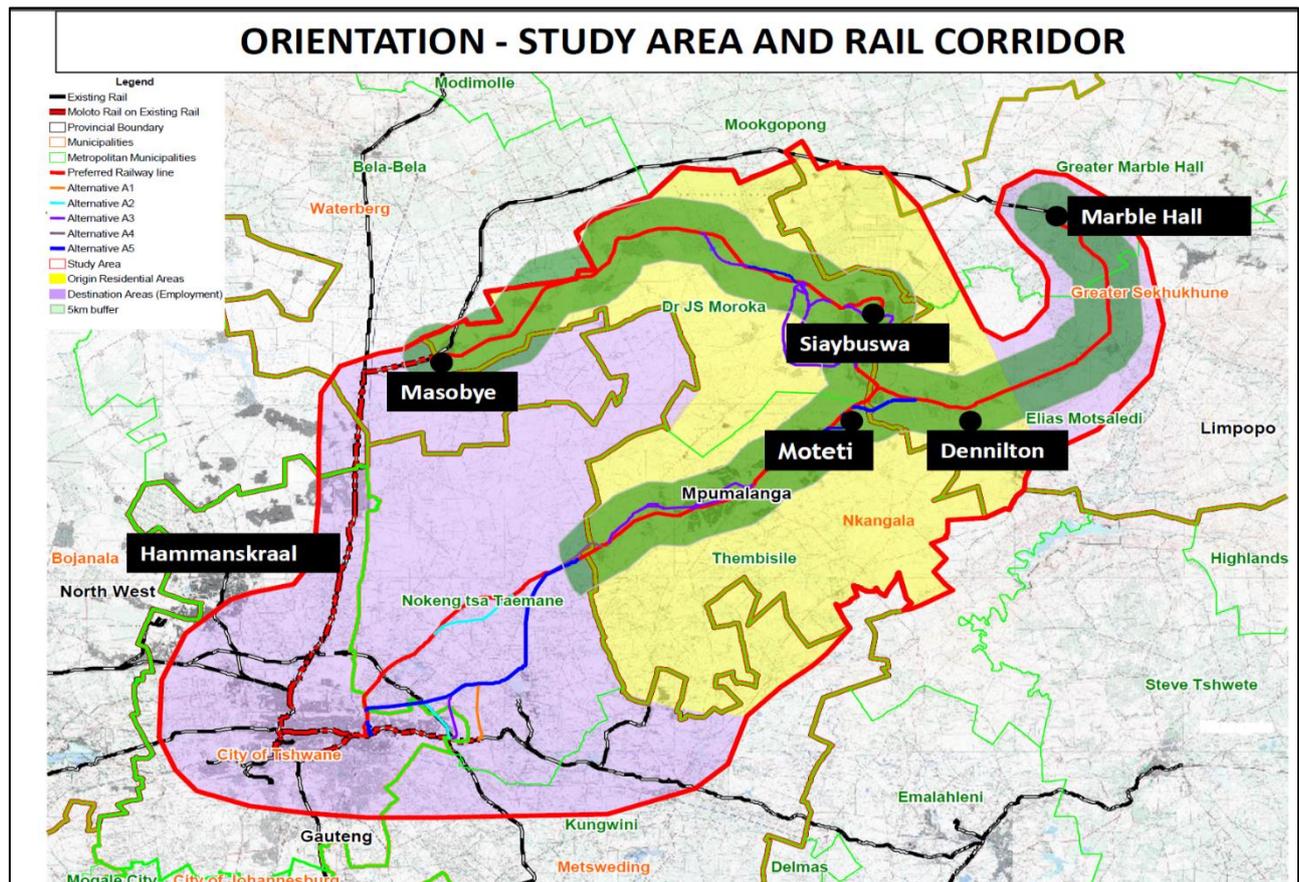
### **3.14. Rail Transport**

There is currently no rail transport within the municipal area. The planned Moloto Rail will pass through the Jane Furse Town to Burgersfort. The planned rail will cater passenger and goods transportation.

The planned rail will connect the municipality with various mines in the surrounding areas, potentially extending to major harbours like Richards Bay.

This railway could alleviate congestion in Jane Furse and reduce the impact of large trucks that transport heavy materials, including mined goods, through the municipality. Consequently, this could lead to less frequent road maintenance as the roads would endure less damage. The planned rail corridor will include the following:

- Standard gauge line from Pretoria to Moloto & Siyabuswa
- Double Decker Coaches with push-pull Locomotives
- 160 km/hour
- Future extensions: Moloto – Groblersdal, Groblersdal – Jane Furse, Jane Furse – Burgersfort



Map 42. Rail Corridor around Makhuduthamaga

### 3.15. Air Transport

There is currently no air transport within the municipal area, and there are no plans to establish an airport within the municipal area. The nearest airport is Polokwane International Airport, located two hours away from the municipality.

### 3.16. Traffic, Congestions and Volumes

Traffic congestion is a concern in Jane Furse town, particularly on the town's main road, namely, Mashadi Main Road. The primary cause of congestions includes the following:

- Inadequate accommodation for the high volume of cars.
- Hawkers along the road
- Unavailability of NMT system
- Taxis in the town frequently disregard traffic regulations, contributing to the problem.
- The area around Jane Furse Plaza experiences especially high traffic volumes, largely due to SUV-type taxis parking on the road, which impedes the flow of other vehicles.

Traffic congestion hotspot within Jane Furse is also experienced at Jane Furse Crossing Taxi Rank, with similar challenges of Jane Furse Plaza.

**JANE FURSE AREA 2 CONTEXT**



Map 43: Map showing a section of Jane Furse



Figure 45: Image depicting traffic congestion at Jane Furse Crossing

Additionally, street vendors encroach on pedestrian pavements, forcing pedestrians onto the main road instead of using the designated non-motorized transport (NMT) paths.

Moreover, the traffic lights at the four-way intersection at Jane Furse Crossing are non-functional, effectively turning the intersection into a stop sign and further exacerbating traffic congestion.

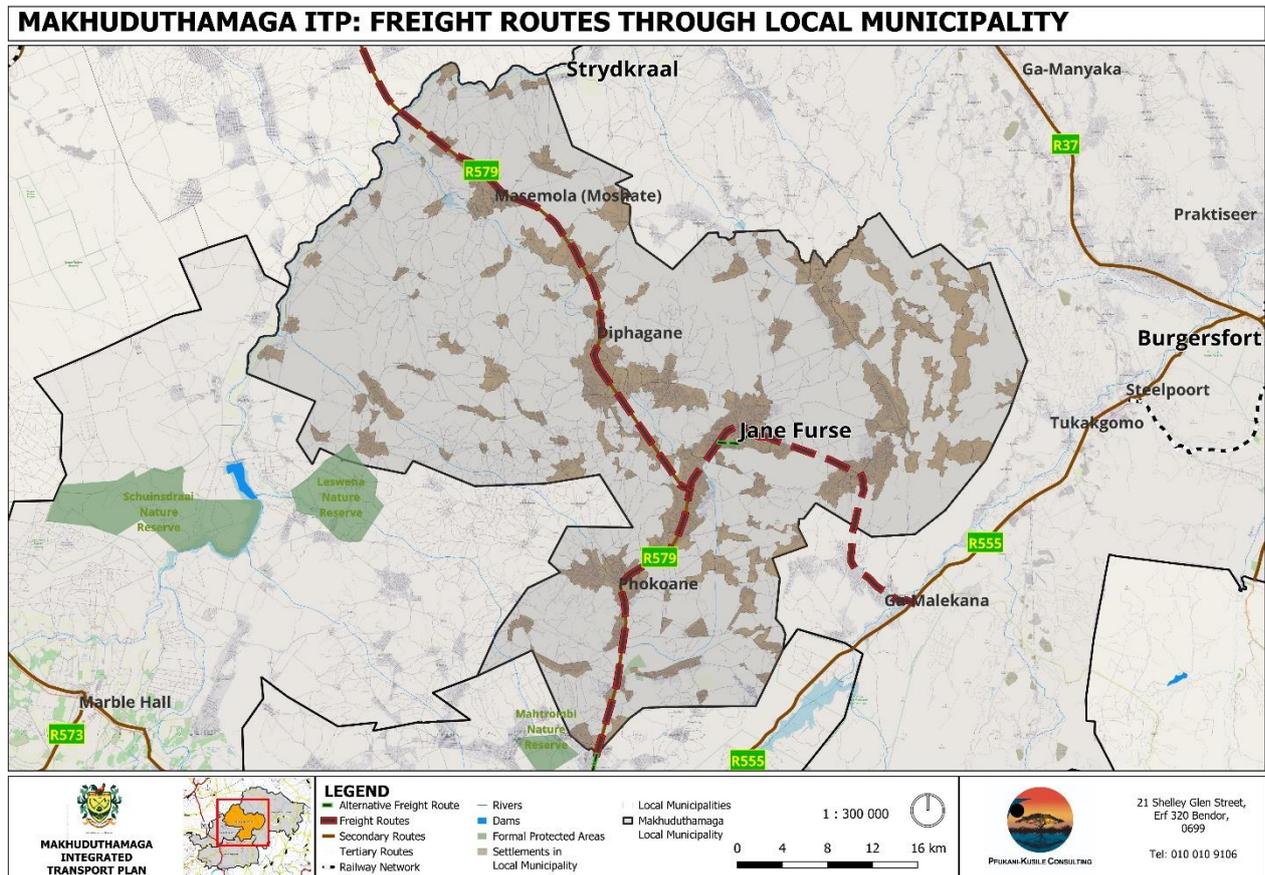
**3.17. Freight Transport**

Freight transport plays a significant role in the municipality's economy, facilitating the movement of goods and materials essential for local businesses and industries.

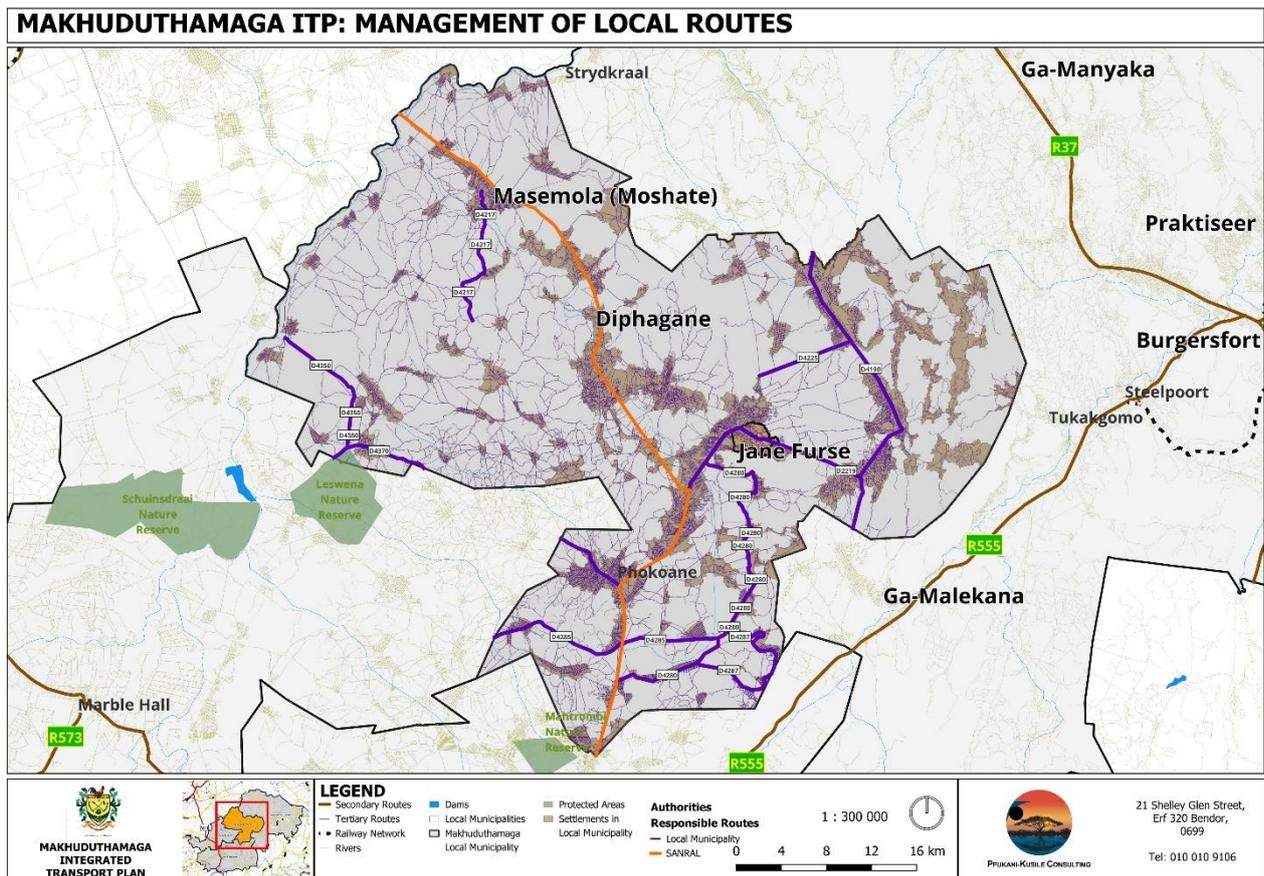
It is worth noting that the municipality do not have any freight or logistic hub, however, it serves as a transit for the movement of goods and services to different destinations. The economic growth of the neighbouring municipality especially the Fetakgomo-Tubatse Local Municipality (FTLM) is mainly built around the retail, and mining industries which represents the bulk of freight in the Jane precinct.

Most of the major freight trip generated within the municipal area are linked to the main road network (R579 & D2219).

A route map showing the freight transport network is highlighted below.



Map 44: Map showing Freight Routes through Local Municipality



The freight transportation transiting through the municipal area consists of:

- Bulk materials for the export markets
- Bulk materials imported to the mines
- Bulk liquid to the mines and Burgersfort
- Industrial freight (spares, machinery to the mines, bricks, stone, etc.).
- Agricultural products
- Fast moving consumer goods (FMCG)
- Manufactured goods.

The above freight flows can further be unpacked in different commodity groups namely:

- Bulk Materials
- Break bulk
- Fuel and petroleum; and
- Containerized freight.

These goods are also regarded as dangerous and can impact the transport system within the municipal area. A strategy should be developed to alleviate disasters with regard to freight transport and transportation of dangerous goods.

### 3.18. Parking

Public parking is also regarded as a challenge within the municipal nodes and the municipal area as a whole.

### 3.19. Summary of MLM transport and infrastructure challenges

The transportation system within the municipal area is diverse but requires improvements.

### **Minibus Taxi**

- The daily network includes minibus taxis, SUV-type taxis, and Light Delivery Vehicles (LDVs), and are essential for commuter travel.
- Minibus taxis are the main mode of public transport
- Issues identified include:
  - Lack of water, sanitation, shelters, and seating areas.
  - operations in open spaces.
  - congestion due to illegal roadside holding facilities.

### **Bus Operations**

- No public bus operators within MLM.
- Great North Transport has ceased operations.
- Thembaletu Bus operates outside MLM.
- Sekhukhune Express transports miners to neighbouring municipalities.

### **Other Modes of transport**

- SUV (6+1) Taxis:
- Recently approved for operation, replacing unregulated 4+1 taxis.
- LDVs: Serve remote, mountainous areas due to challenging terrain, not formally recognized but operating at Schoonoord Taxi Rank.
- Scholar Transport: Managed privately by unregulated operators; the alternative, Bakwena Bus Company offers compliant services in Mpumalanga.
- Air transport and water transport are non-existent within the municipality

### **Miner Transport**

- Many mine workers live in MLM but commute to mines in other municipalities using privately hired buses like Sekhuthuba Express.

### **Non-Motorized Transport (NMT)**

Challenges related to NMT are:

- Inadequate infrastructure,
- poor pavement maintenance,
- scarce streetlights,
- pavement encroachment by street hawkers, forcing pedestrians onto roads.

### **Traffic and Congestion**

Challenges related to traffic volumes and congestion:

- Major congestion in Jane Furse, especially around the Plaza and Crossing Taxi Rank due to taxis parking on roads.
- non-functional traffic lights.
- street vendor encroachments.

### **Freight Transport**

- Also serves as a transit of freight transport
- Neighbouring municipalities, especially FTLM transporting goods from mines
- Strategy to minimise transportation of dangerous goods within the municipal area.

- No freight transport or logistic hub.

## 4. SPATIAL DEVELOPMENT FRAMEWORK

### 4.1. Introduction

The Spatial Development Framework (SDF) of the MLM underwent its last review in 2021. Like many rural municipalities in South Africa, the municipal area is characterized by a fragmented settlements structure resulting from historical apartheid policies, leading to poor accessibility and small, low-density settlements separated by large distances.

The main purpose of the SDF chapter to form part of the MLM ITP is to extract and align the plan with the municipal's development pattern, future growth direction, municipal growth nodal points and land use proposals that may have an impact on the ITP proposals. The SDF has identified the following issues that requires attention:

- Dispersed rural settlements lacking a consolidated spatial structure.
- Limited formalized access to land.
- Inadequate basic services and community facilities.
- Low levels of economic development leading to socio-economic challenges.
- Suboptimal utilization and protection of natural resources, including agricultural land.

### 4.2. SDF Vision & Principles/objectives

The vision of the MLM SDF is to become

**“A Catalyst of Integral Community Driven Service Delivery”.**

The vision focuses on integrated growth for sustainable service delivery, aligning with the Municipality's vision statement, with emphasis on:

- sustainable development,
- integrated growth, and
- transforming spatial arrangements.

This is the long-term goal which will guide the implementation of the MLM SDF, meet SPLUMA requirements and guidelines for spatial planning.

The SDF seeks to achieve objectives such as adhering to development principles outlined in SPLUMA, identifying significant spatial elements, estimating population growth and housing demands, projecting economic activity and employment trends, and addressing infrastructure and service needs.

### 4.3. Municipal Growth/Nodal Points

The SDF classified its settlements into three categories, namely:

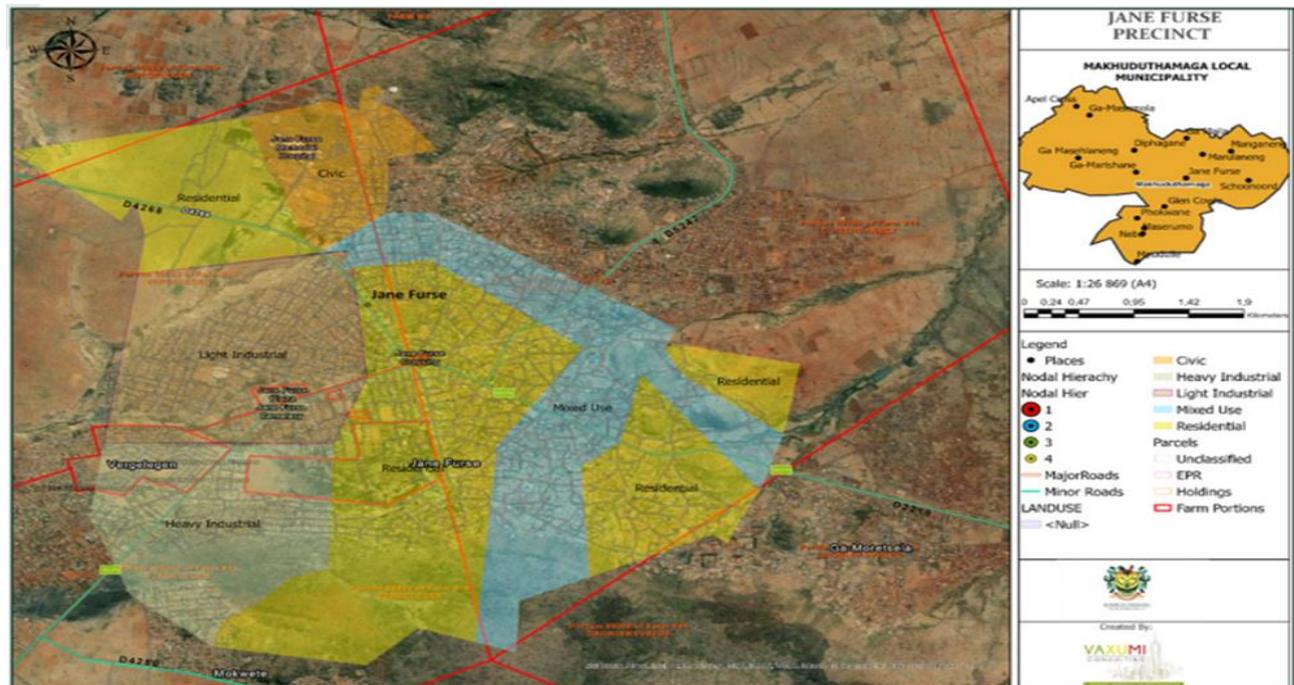
No	Municipal Nodes	Targeted Areas
1.	Primary Activity Nodes,	Jane Furse, Apel Cross, and Glen Cowie
2.	Second-order settlements	Vierfontein/Takataka, Moratiwa, and others
3.	Third-order settlements	The remaining villages

Table 22: Table showing SDF classified settlements

Within the current SDF, precincts were developed for various nodes within the municipal to address specific spatial challenges and guide development.

#### 4.3.1. Jane Furse Precinct Plan 2020

The Jane Furse Precinct plan was developed to address fragmentation, limited engineering services, tenure issues, and poor land use administration. Identified six precinct types including residential, civic, commercial, and health zones, aiming for a hybrid approach integrating sub-precincts. Emphasized compact, medium to high-density residential and mixed-use areas around the central business district, promoting walkability, and supporting public transport.



Map 45: Jane Furse Precinct Map

This SDF proposes the following transport interventions for Jane Furse node:

- Widening of D2219 to create a dual carriage way to improve traffic mobility within the Jane Furse CBD
- Provision of kerbs to curb illegal parking
- Provision of parking bays where appropriate
- Paving of all internal streets connecting to the CBD and all internal streets within the node
- Provision of bus and taxi shelters for passengers at strategic points
- Provision of inter-modal transportation facilities in a strategic location
- Promotion of multimodal movement along major streets to accommodate both vehicles and non-motorized movement

#### 4.3.2. Schoonoord Precinct Plan

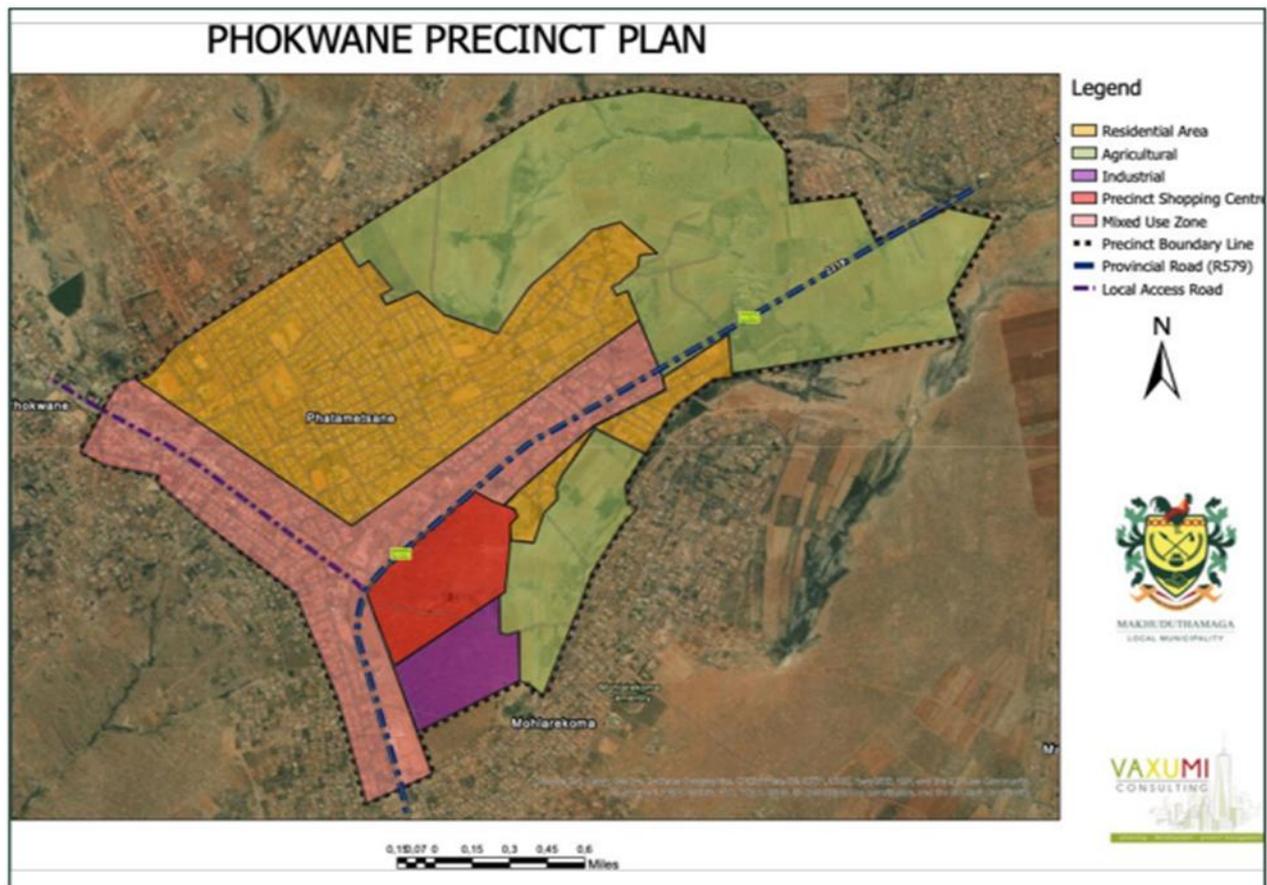
Schoonoord is in the eastern part of Jane Furse town, characterized by spatial injustice, poverty, and infrastructure backlogs.

Strategies proposed include the following:

- Mixed-use developments/zonings,
- improving movement networks,
- enhancing residential zones,
- developing community facilities,
- establishing industrial and agricultural zones.

#### 4.3.3. Phokoane Precinct Plan

The Phokoane faces similar challenges to Jane Furse, with underserved infrastructure and competing land claims. Proposals include mixed development along the R579 road, road and transport improvements, and industrial and agricultural precincts.

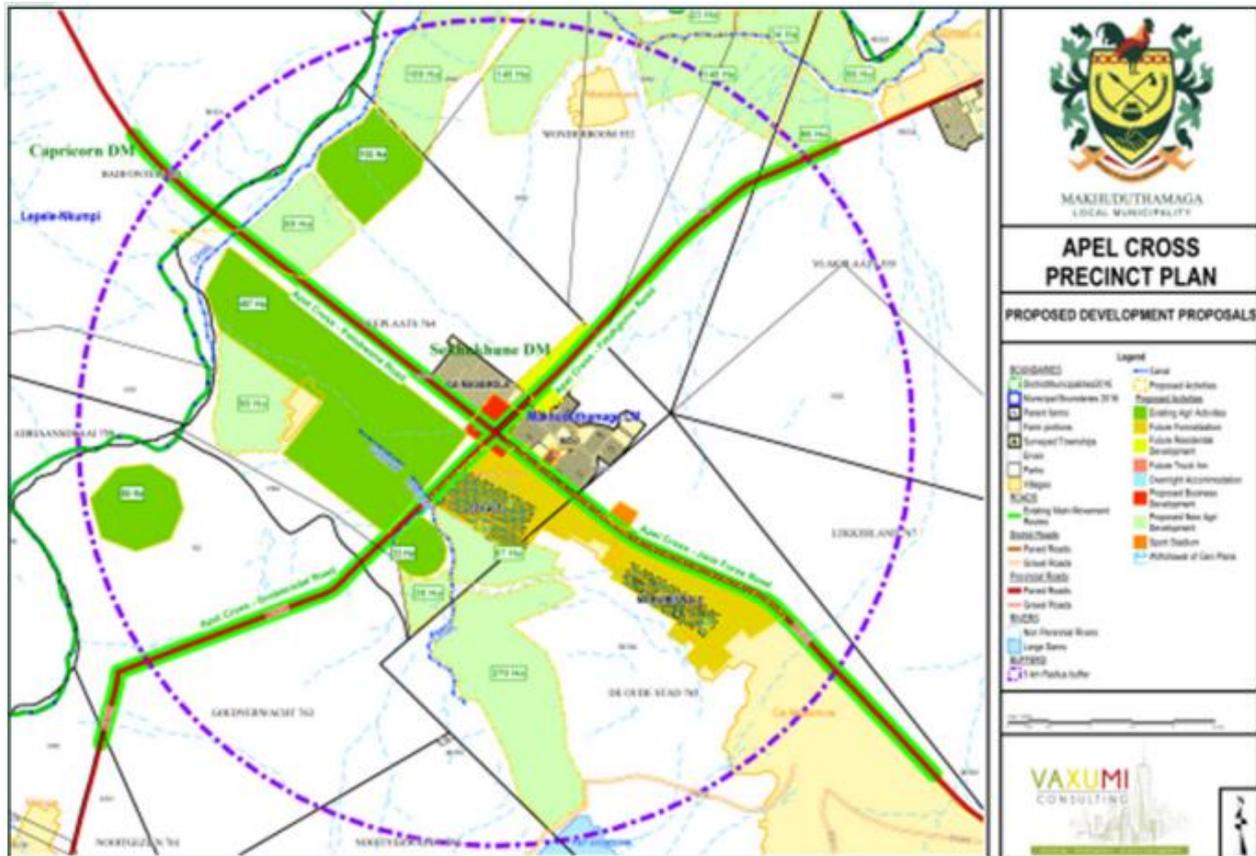


Map 46: Phokoane Precinct Map

#### 4.3.4. Apel Cross Precinct Plan:

The Apel Cross Precinct highlights challenges such as low-density sprawl and land ownership uncertainties. Development Proposals include the following:

- improvements in transport networks,
- development of agricultural nodes, and
- enhancements in residential zones and agro-processing facilities.



Map 47: Apel Crossing Precinct Map

Overall, these precinct plans aim to address specific spatial challenges through strategic zoning, infrastructure improvements, and economic development initiatives, aligning with SPLUMA principles and local development objectives. The developed precincts also highlighted the challenges associated with transport and movement.

**4.4. Central Business District (CBD)**

Jane Furse is regarded as the main CBD, which spans across two farms, namely Vergelegen 819 KS (portions 1-3) and Duizendannex 816 KS. While the South African government is the registered owner of the land where the town is located, the town, along with its surrounding villages, falls under the custodianship of traditional authorities.

Compounding this situation are multiple and conflicting land claims on the same land parcels within Jane Furse town. This uncertainty regarding ownership and tenure poses significant challenges to the sustainable development of the area, hindering both direct and indirect investments in the region.

**4.5. Targeted densification and intensification**

This entails a focus on mixed land-use development characterized by the intensification and densification of settlements identified as nodes and should be aligned with public transport infrastructure.

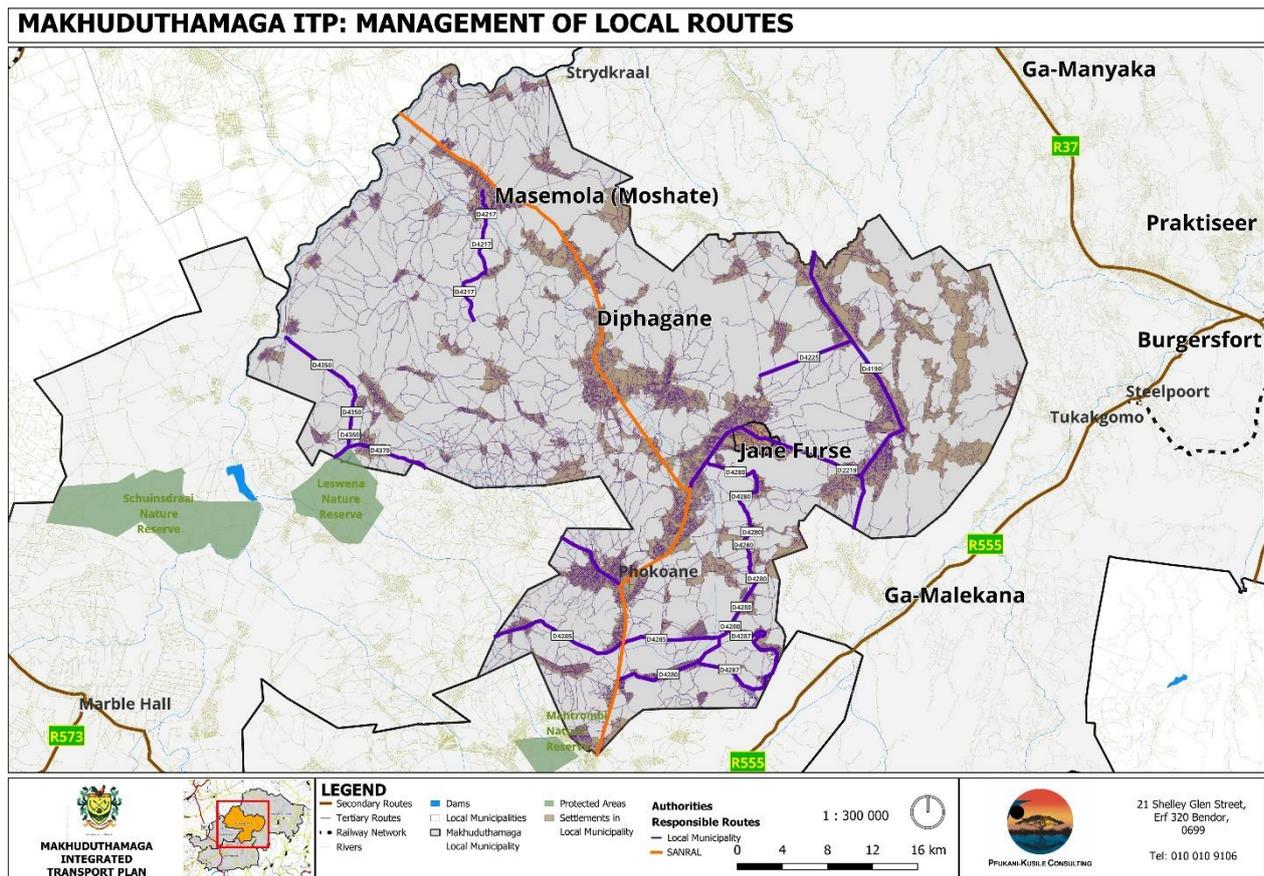
Specifically, intensification, infill, and densification are planned within the Jane Furse nodal boundary to prevent sprawl into environmentally sensitive areas and agricultural land, thereby promoting sustainable development through controlled residential expansion.

Additionally, the SDF advocates for the intensification of retail development within key areas such as Apel Cross (Masemola), Marishane, Jane Furse, Glen Cowie, Moratiwa (Road R579), Phokoane (junction of R579 and D4190), and Jane Furse-Magnets Heights-Steelpoort (D2219) due to the concentration of retail activities along major transport routes identified in the SDF.

#### 4.6. Integrated Public Transport Network (IPTN) Plan

As part of the integrated public transport network plan, the SDF proposals include the following:

- Planning for the R579 corridor and the Moratiwa, Apel Cross, and Glen Cowie nodes, driven by population growth in the area.
- Public transport facilities along routes such as D2219, D4828, and D4190, incorporating pedestrian amenities at stops.
- The development of public transport facilities in nodes and along routes classified under Second Order Settlements, such as D2219, D4226, and D4241, is proposed, along with pedestrian amenities at stops, including shelters.
- Plans aim to provide public transport facilities in nodes and along routes like D4310, D4150, D4100, and D480, also incorporating pedestrian amenities at stops.
- Improving access by functionally linking all nodes and settlements through the tarring and upgrading of the main road network connecting these areas.



Map 48: Map showing the Management of Local Routes in Makhuduthamaga Local Municipality

The proposed road network upgrades include:

- Widening road R579 into a dual carriageway between Jane Furse and Stofberg via the Moratiwa node.
- Implementing pedestrian sidewalks and cycling routes in all nodes.
- Paving all internal streets in nodal points and rural service points such as Nebo and Phokoane.
- Installing traffic lights in the main streets of the Jane Furse node to regulate traffic and pedestrian movement, along with streetlights to enhance pedestrian mobility at night.
- Establishing an intermodal transport facility within the mixed land development at Jane Furse.
- Providing various modes of transport infrastructure, including public transport facilities such as bus shelters and semi-taxi stations along road R579 throughout the entire municipal area, with nodes and rural service points serving as points of departure.

The SDF proposals will form part of the proposed ITP and the MLM ITP Infrastructure strategy.

#### **4.7. Implementation**

The MLM SDF identifies nodes, both rural and urban, as priority areas for development and investment within the municipal jurisdiction. These nodes require new infrastructure and upgrades to stimulate economic activity and vibrancy. The SDF emphasizes the need for radical mechanisms to support intensification and mixed land use development, aiming to achieve spatial justice and efficiency.

The Implementation Framework proposes measures, interventions, and projects to realize the objectives of the SDF.

Development Principles and Strategies were formulated to address key spatial challenges, with tools and strategies proposed for successful implementation.

Institutional capacity, particularly within the Municipal Planning Department, is crucial for effective implementation, requiring properly trained staff and resources across all municipal departments.

Financial capacity is also vital, necessitating capable financial management to allocate and source funding. Additionally, cooperation with external public and private service providers is essential for delivering services and infrastructure effectively within the municipality.

Failure to adopt a coordinated and integrated approach may impede implementation, as seen with previous documents. To ensure efficient implementation, the following six programs are proposed:

##### **4.7.1. Policy Formulation and Implementation:**

Policy interventions such as streamlining land use development procedures and introducing flexibility in land use schemes, informal trading policies, incentives for investing in nodal areas, densification policies, and nodal policies are recommended.

##### **4.7.2. By-Law Introduction and Enforcement:**

Introduction of by-laws to manage land uses and human behaviour, coupled with a campaign to raise awareness about existing by-laws and their purpose. By-law enforcement to address issues like illegal land uses, informal trading, signage, neglected buildings, and traffic management.

##### **4.7.3. Basic Maintenance and Service Enhancement:**

Agreement among service departments on minimum service levels, covering infrastructure provision and maintenance, policing, landscaping, land use management, by-law enforcement, and public property management. Programs emerging from this should be integrated into the Municipality's Integrated Development Plan (IDP).

#### **4.7.4. Provision of Street Lighting:**

Installation of proper street lighting, particularly in nodal areas, to enhance safety and deter crime. Emphasis on solar street lighting to align with green and sustainable energy initiatives, starting with the primary node of Jane Furse and expanding to other strategic locations, fostering creativity and innovation in enhancing the area's aesthetic appeal.

#### **4.7.5. Informal Trading Upgrading:**

Recognizing the significance of informal trade in the local economy, a program aimed at managing, controlling, and supporting informal trading is proposed. This program entails structuring and assisting informal traders, potentially including the provision of sponsored shelters. Additionally, the formulation and implementation of an Informal Sector Promotion Strategy is recommended to facilitate meaningful engagement of entrepreneurs in the mainstream economy.

This strategy would formalize informal sector businesses, identify constraints and opportunities, assess skills training needs, address infrastructure and logistical requirements, and offer business development services for Small, Medium, and Micro Enterprises (SMMEs). Funding support may be sought from entities like the Development Bank of Southern Africa (DBSA), the Department of Trade and Industry, or the European Union LED Programme in Limpopo.

#### **4.7.6. Establishment of Land Use Management (LUM) Committee Office:**

To enforce and manage the Land Use Management (LUM) System effectively, the establishment of a dedicated LUM Committee with delegated powers from the Council is proposed.

### **4.8. Transit Oriented Development (TOD)**

**Transit Oriented Development** is the exciting fast-growing trend in creating vibrant, liveable, and sustainable communities. The MLM SDF supports Transit Oriented Development (TOD) whereby intensive, mixed-use development is attracted to high quality public transportation, including rail for both goods and passengers coupled with efficient bus services.

The land use strategies should also support TOD which is aimed at creating a more efficient, equitable and sustainable spatial form, integrated with an interconnected transport network.

The Eight Principles of TOD are **WALK, CYCLE, CONNECT, TRANSIT, MIX, DENSIFY, COMPACT, and SHIFT**. The principles illustrate the relationship between transport and land use. These principles form the Framework for the TOD Standard, a universal tool that can be used to evaluate and plan neighbourhoods.

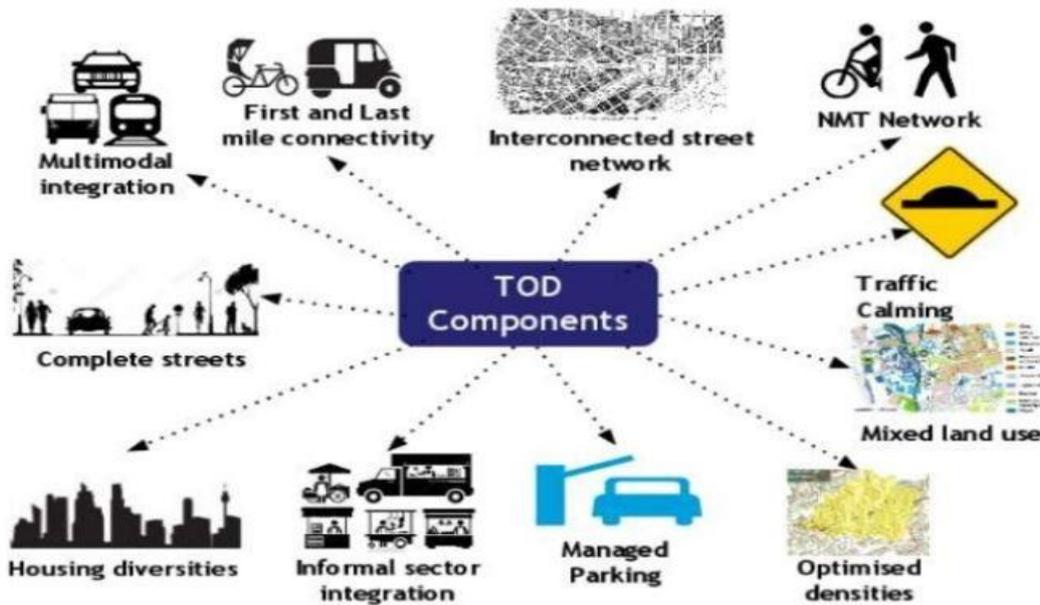


Figure 46: Image depicting Transport Oriented Development Components

#### 4.9. Implications

The movement system within the municipal area is not simply a network for moving people but is a key element of spatial structuring and provides the backbone for municipal development, economic growth and social integration.

The MLM SDF plays a critical role in the planning of the movement system in terms of supporting its key objectives to densify the main towns, improve access to places of residence, work and social facilities and support economic growth.

The planning and improvement of the transport infrastructure network will need to balance the competing needs for mobility and accessibility to ensure that the movement system can support sustainable development.

The following should be considered in the review of the MLM SDF and further planning in the public transport.

- The planning of public transport should be aligned to the basic needs of the municipality, i.e., housing development, economic developments, government plans such as offices to determine if the current provisions are able to fulfil the municipal requirements. New developments call for new road infrastructure and services including transport.
- The spatial structuring elements identified within the SDF, including the urban core, integration zones, nodes, and corridors, need to be central to the formulation of the ITP and appropriate transport strategies and responses developed to support these spatial development concepts and strategies.
- Transport principles such as Transit Oriented Demand (TOD) and Travel Demand Management (TDM) and the analysis of network operations to improve traffic flow should be adopted to reduce congestion on the road network as this negatively impacts economic growth and the “greenness” of the Municipality.
- The ITP should encourage the development of NMT infrastructure and networks to reduce the demand for private car travel and improve the liveability of neighbourhoods and communities within the area.

Through the Municipal Infrastructure Grant (MIG), continuous upgrades of internal streets like the Nebo By-pass have been implemented, enhancing connectivity between settlements, and improving access to crucial government services in the area.

As per the SDF, several transportation challenges hinder the efficiency and sustainability of the region's infrastructure.

- The absence of a rail line necessitates heavy truck reliance, contributing to road damage and increased maintenance costs.
- Furthermore, poor management of road reserves, particularly at busy intersections along the R579 route, exacerbates existing road infrastructure issues.
- In strategic areas, public transport facilities are either non-existent or in a state of disrepair, demanding substantial upgrades.
- The prevalence of untarred roads further complicates transportation, causing a disconnection in dispersed villages and impeding accessibility.
- Additionally, a lack of coordination and alignment among the municipality, province, and SANRAL introduces complexities in transportation planning and development efforts.

Challenges in the public transport sector include inadequate formal facilities in key nodal areas, deteriorating road conditions increasing operational costs, and a lack of integration among transportation modes, particularly in the Jane Furse primary node. Key destinations for public transport services include with government offices acting as significant pull factors in certain areas.

- Jane Furse,
- Schoonoord,
- Phokoane,
- Moratiwa, and
- Nebo,

Jane Furse serves as a hub for various services and retail options, connecting to vital locations such as:

- Polokwane,
- Lebowakgomo,
- Steelpoort,
- Stofberg (Elias Motsoaledi Local Municipality), and
- Gauteng Province.

Notably, the study area lacks air and rail transport, highlighting the predominant reliance on road-based transportation, which emphasizes the need for an ITP.

## 5. TRANSPORT NEEDS ASSESSMENT

### 5.1 Introduction

This chapter provides a comprehensive overview of the transport-related challenges and requirements within the jurisdiction of the municipal area (MLM), with a focus on insights derived from the transport register, public engagement initiatives during surveys, stakeholder consultations, and infrastructure maintenance assessments. The needs will also include the IDP engagement sessions.

The chapter further initiates a thorough needs assessment for the forthcoming five-year period. The subsequent discourse clarifies emerging concerns and pressing issues that demand attention, drawing upon insights gleaned from the latest Transport Sector Plan deliberations.

### 5.2. Summary of critical transport needs

Critical transport needs within the municipal area can be summarized as follows:

- Expansion of the main roads to ease current congestion.
- Replace the Great North bus company with a local company to serve the municipality as it is
- Expansion of NMT facilities
- Formalization of the ranks and facilities in nodal points/precinct plans.
- Availability of side curb to park vehicle when offloading/loading passengers
- Provision of facilities for 6+1 vehicles
- Provision of floodlights especially on main roads
- Tar road replacing gravel road
- Safety and security within the ranks
- Public parking
- Relocation of government offices will have great implications on public transport as there will be an increase of workforce in MLM. (also, the proposed mall)

### 5.3. Responses from the Survey

The surveys were conducted over a two-week period within the municipal area, gathering information from participating members of the public. The responses to the questionnaire were as follows:

#### 5.3.1. Transport Passenger Survey

The Transport Passenger Survey included a range of transport-related questions for participants. Regarding the availability of Non-Motorized Transport (NMT) facilities in the municipality, 187 out of 215 participants indicated a lack of sufficient NMT facilities, while only 28 participants believed the facilities were adequate.

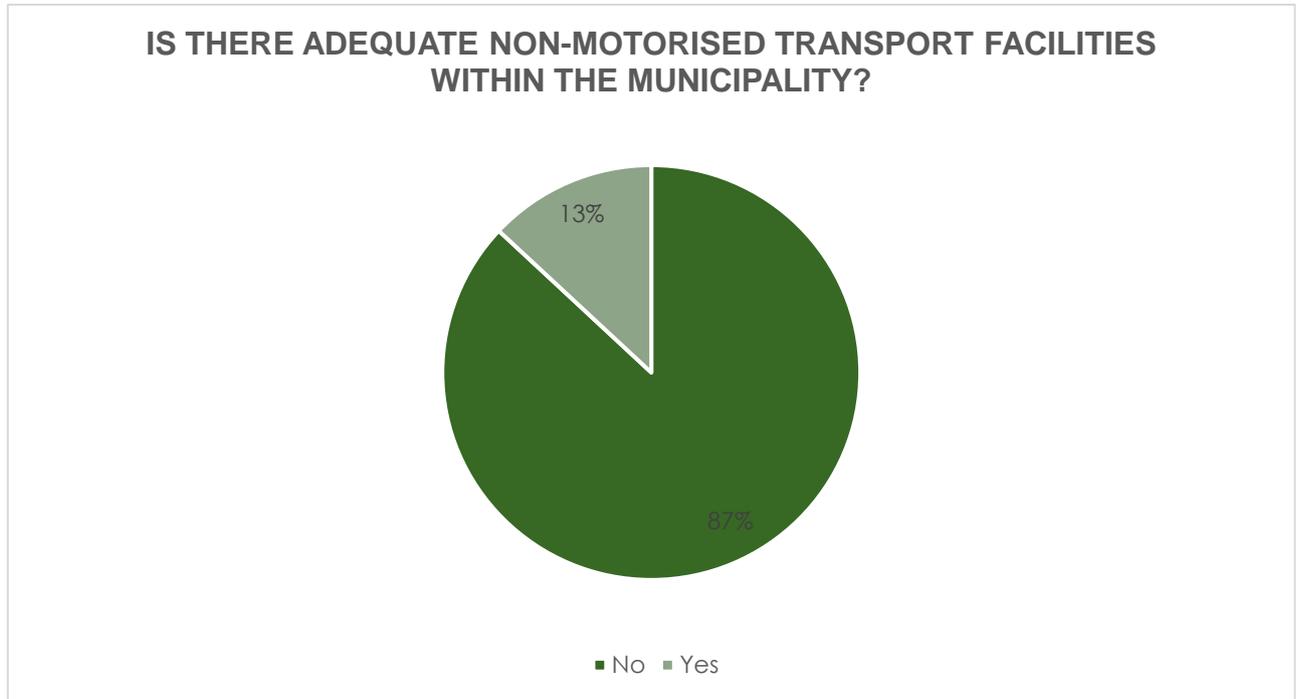


Figure 47: Pie chart showing the responses of whether there are adequate NMT facilities in the municipality

Facility Name	Number of responses	% of response
Jane Furse Taxi Rank	73	34%
Sekhukhune Taxi Rank	27	13%
Moratiwa Taxi Rank	16	7%
Phokoane Taxi Rank	13	6%
Ga-Marishane Taxi Rank	12	6%
Manganeng Taxi Rank	10	5%
Tshehlwaneng Taxi Rank	9	4%
Apel Crossing Taxi Rank	7	3%
Maserumule Park Taxi Rank	6	3%
Moratiwa Crossing Taxi Rank	6	3%
Nebo Hospital Taxi Rank	6	3%
Malope Taxi Rank	4	2%
Marishane Taxi Rank	4	2%
Ga-Maila Mapitsane Taxi Rank	3	1%
Glen Cowie Fourways Taxi Rank	3	1%
Mphanama Cross Taxi Rank	3	1%
St Ritas Hospital Taxi Rank	3	1%
Vleischboom	2	1%
Ga-Masemola Taxi Rank	2	1%
Mashadi Plaza Taxi Rank	2	1%
Schoonoord Taxi Rank	2	1%
Jane Furse Hospital Taxi Rank	1	0%
Maganeng Taxi Rank	1	0%
<b>Total</b>	<b>215</b>	<b>100%</b>

Table 23: Table showing the list of facilities that questionnaires were conducted in and the number of participants.

Most participants were from Jane Furse Taxi Rank, which is a combination of Jane Furse Plaza Taxi Rank and Jane Furse Crossing Taxi Rank.

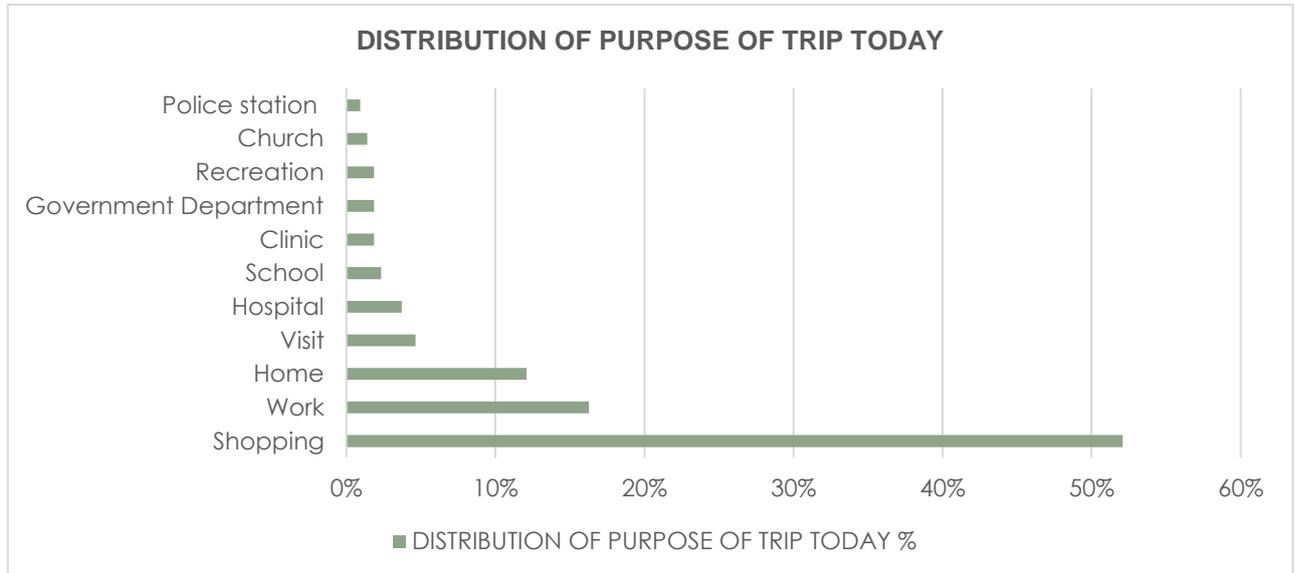


Figure 48: Bar graph showing the distribution of purpose of the trip today

112 participant utilises the transport for shopping purposes, while 26 participants utilise the transport for home purpose and 3 people to reach church.

The following issues were highlighted as the needs to improve NMT.

What needs to be improved	Number of participants
Streetlights and pavements	51
Streetlights	44
None.	32
Pavements	28
Water and sanitation	5
Water supply	5
Pavements and clear road signs	3
Streetlights, pavements and road signs	3
Public toilets	2
Streetlights	2
Streetlights and road signs	2
Streetlights, pavements and public toilets	2
Streetlights, pavements and waiting areas	2
Bridges for crossing	1
Fix ditches	1
Gravel	1
Housing	1
Improve existing NMT routes	1
Improve pedestrian safety	1
Lack of facilities	1
Lack of NMT facilities	1
Library	1
Nothing	1
Pavements and public toilets	1
Pavements and road signs	1
Pavements and security	1
Pedestrian crossings	1
Pedestrian robots and road signs	1
Public transport	1

Security	1
Shacks on pavements	1
Shelters along NMT routes	1
Sports ground	1
Streetlights and pedestrian crossings	1
Streetlights and pedestrian robots	1
Streetlights and security	1
Streetlights and Water	1
Streetlights, pavements and bicycle lanes	1
Streetlights, pavements and dustbins	1
Streetlights, pavements and gravel road	1
Streetlights, pavements and maintenance of existing streetlights	1
Streetlights, pavements and pedestrian robots	1
Streetlights, pavements and rest spots on NMT routes for elders (bench)	1
Streetlights, pavements, NMT shelter, bicycle lanes and public toilets	1
Water	1
Water, sanitation and tarred roads	1
Yes	1
<b>Total</b>	<b>215</b>

Table 24: What needs to be improved in terms of NMT

Safety within the municipal routes became essential to determine the safety of the commuters. 78% of the participants feels that the routes are unsafe, and 22% of the participants feel the routes to be safe.

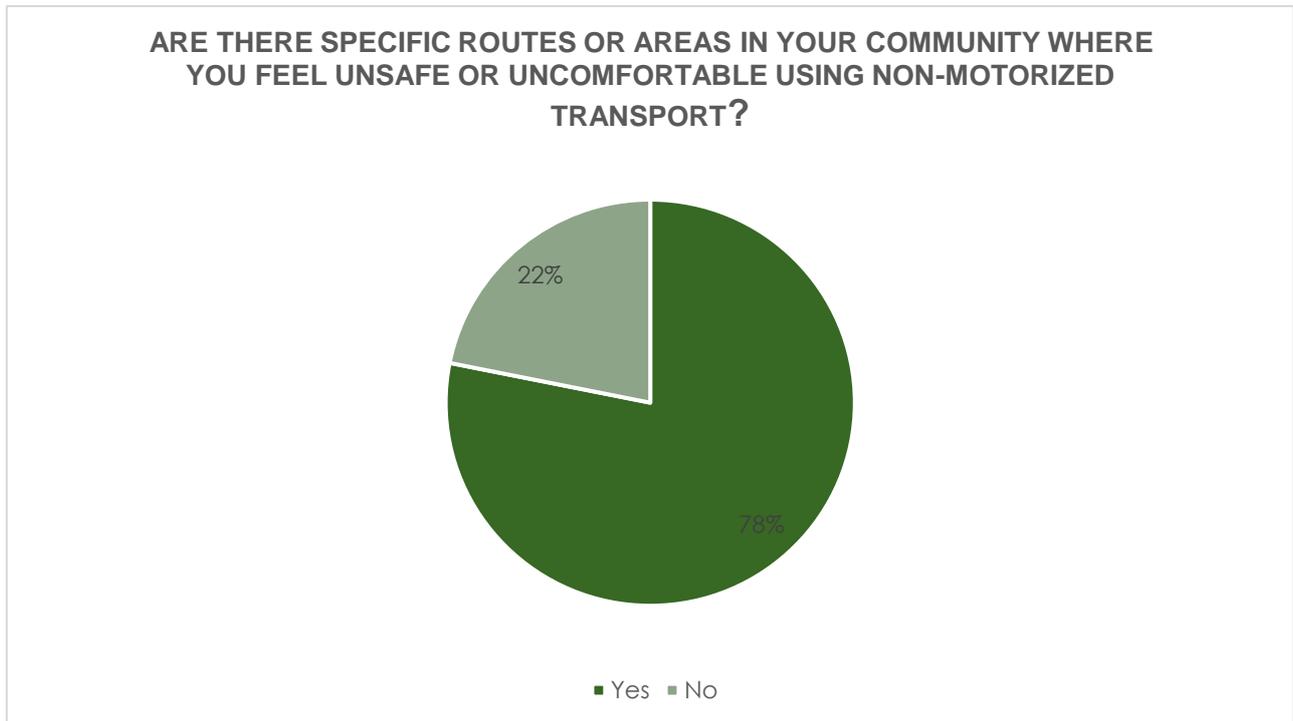


Figure 49: Pie chart showing the distribution of people who felt unsafe or safe using specific routes through NMT

Various suggestions were suggested to improve NMT routes and to be accessible to all and the following were critical:

- Implementing security measures such as hiring private security guards to constantly observe NMT routes as suggested by 53 participants,
  - Streetlights was suggested by 52 participants and
  - the removal of shacks on the pavements for the pedestrians to reclaim the pavements.
- Only 1 person suggested reducing the congestion in the municipality as a measure to make NMT routes safer and more accessible.

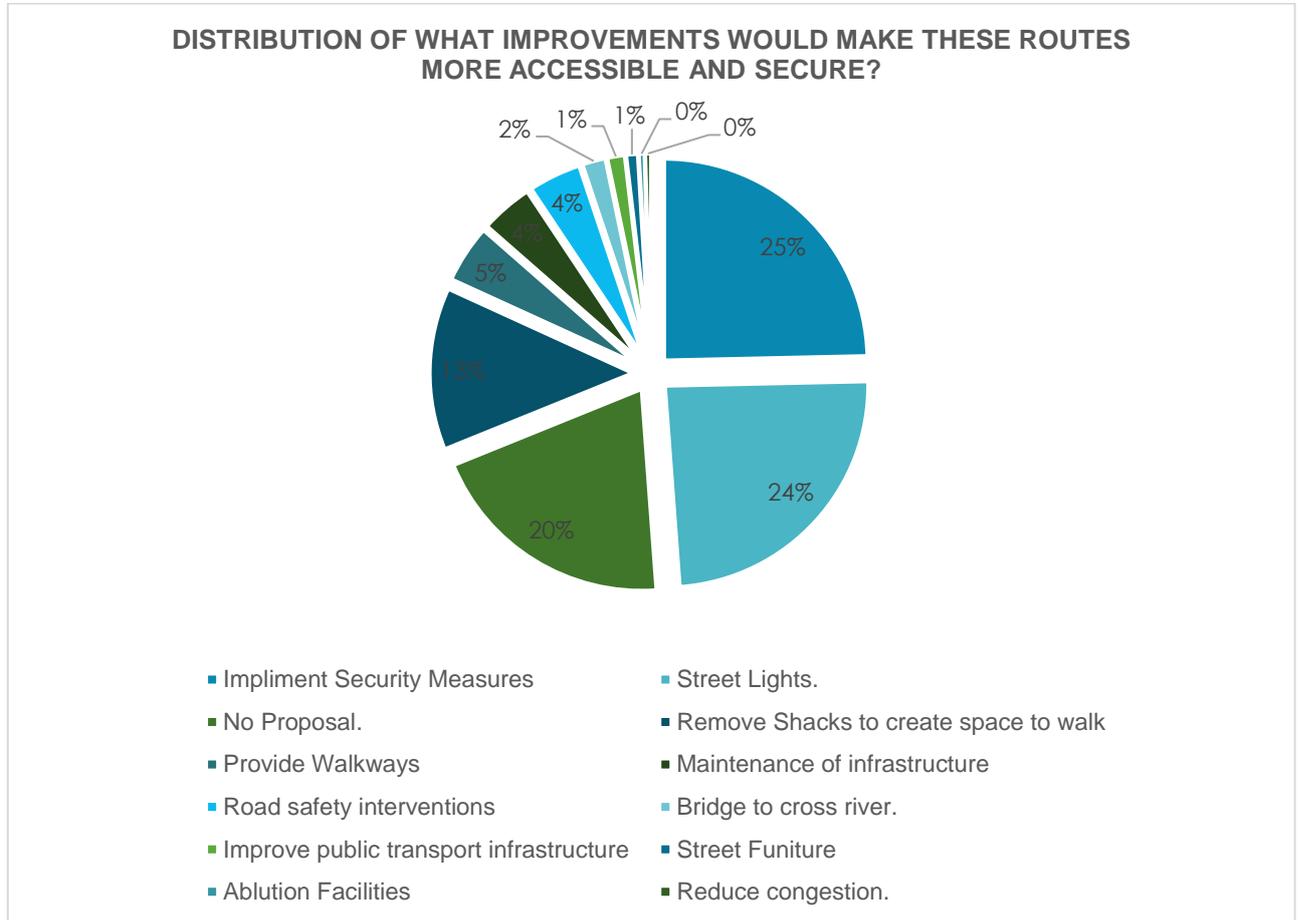


Figure 50: Pie chart showing the distribution of improvements that would make routes accessible and secure

The below table highlight the distribution of suggested improvements or infrastructure changes that would encourage commuters to utilise non-motorized transport more frequently for the daily use.

Description	Count
Implementation of NMT Infrastructure.	78
Streetlights.	59
Shelter and ablution Facilities.	19
Security camaras and visible police officers.	16
Road signs and road marks.	14
Maintain and provide new road infrastructure.	13
None.	6
Improvements at the Taxi Rank Facilities.	2
No Recommendation.	2
Provide Hawkers Stalls.	2
Provide paved roads.	2
Provide alternative Public Transport.	1
Street Furniture.	1
<b>Total</b>	<b>215</b>

Table 25: Table showing the distribution of suggested improvements that would encourage participants to use NMT on daily commute

10% of the participants cited having some form of disability, while the vast majority, which is 95%, stated that they do not have any disability. The surveyors shared that most people were reluctant to answer this question and some even showed visible signs of taking offence when being asked this question.

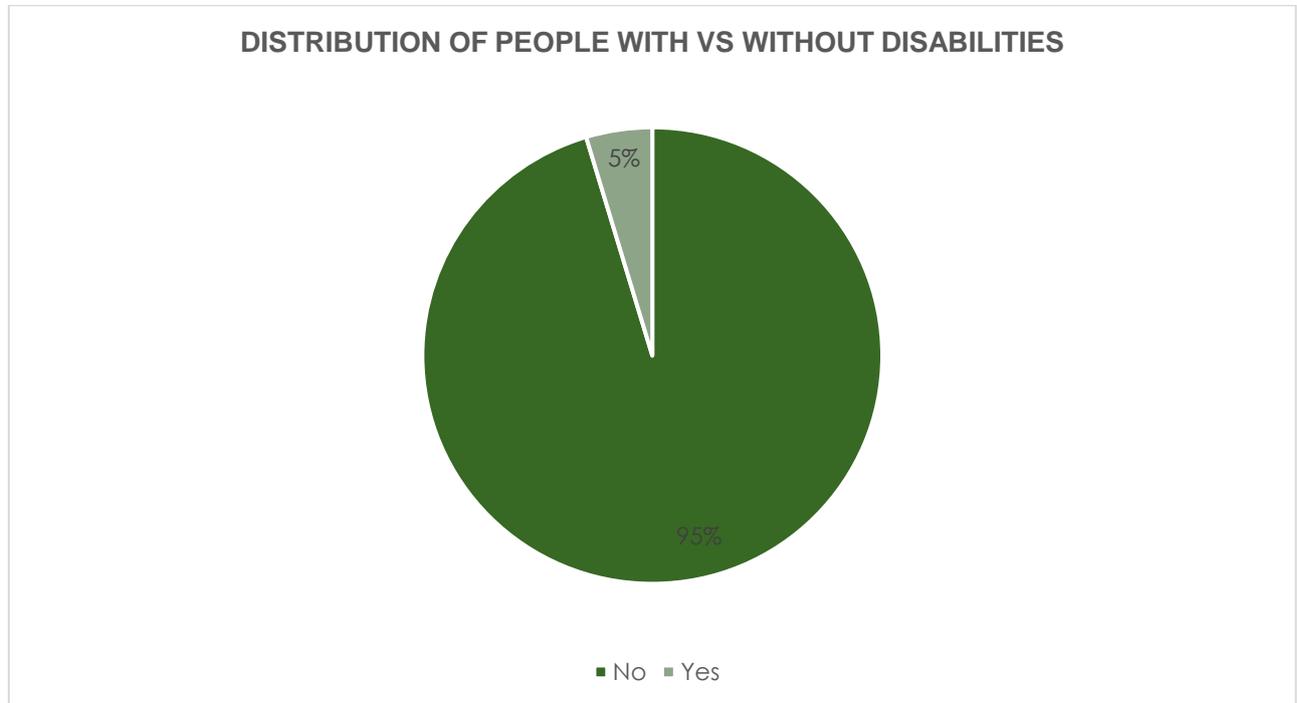


Figure 51: Pie chart showing the percentage of people with disabilities vs without disabilities

Of those who were living with disabilities, 3 stated that they had an eye related disability, 3 stated having a leg-related disability, 1 was using a wheelchair, 1 had an ear-related disability and 2 stated that they had high blood pressure, although we recognise that this is not particularly a disability but rather a chronic illness. See the below table:

Disability Type	Number of people	Percentage of people
Eye disability	3	30%
Leg disability	3	30%
High Blood Pressure	2	20%
Ears disability	1	10%
Wheelchair Usage	1	10%
<b>Total</b>	<b>10</b>	<b>100%</b>

Table 26: Table showing the types of disabilities some participants had

The main challenges experienced by some participants while using public transport include bad driver behaviour, waiting too long for a minibus taxi to leave the respective rank, traffic congestion, etc. See the table below for further details:

Main challenges experienced in Public Transport	Number of people	Percentage of people
None	59	27%
Bad Driver Behavior	38	18%
Passenger waiting time is too long	27	13%
Need scheduled Taxi Services	16	7%

Satisfied	13	6%
Need for Scheduled Taxi Services	9	4%
Shelter and ablution Facilities	7	3%
Walking Distance between loading point and house	6	3%
Taxi operational matters	4	2%
Traffic congestions	4	2%
Lack of adequate public transport	3	1%
Poor road conditions	3	1%
Streetlights	3	1%
Cleanliness of Taxi Vehicles	2	1%
Fare increases	2	1%
Lack of maintenance for Taxis	2	1%
Maintain and provide new road infrastructure	2	1%
Need for subsidised buses	2	1%
Noise in Taxi, due to other passengers	2	1%
Taxis not Disabled Friendly	2	1%
Insufficient Public Transport Infrastructure	1	0%
Need for NMT Facilities	1	0%
Need for Street Lights	1	0%
Need to use bakkie transport, safety concern	1	0%
No walkway when rain	1	0%
Passengers paying for parcels	1	0%
Pick-Pocketers	1	0%
Taxi vehicles to old	1	0%
Transport during weekend taxi trips to work	1	0%
<b>Total</b>	<b>215</b>	<b>100%</b>

Table 27: Table showing the main challenges experienced while using Public Transport

Some of the solutions that the participants suggested to curb the challenges they face while using public transport include drivers being trained on how to treat their passengers, schedules being provided for public transport and the creation of an integrated transport system. Other reasons are below:

<b>Suggested solutions to the main challenges experienced in Public Transport</b>	<b>Number of people</b>	<b>Percentage of people</b>
None	51	24%
Human relation training for Taxi Drivers	24	11%
Provide scheduled Taxi Services	19	9%
Government should help to develop scheduled services	15	7%
Well, defined integrated public transport network	13	6%
Operational Training for Taxi Operators	12	6%
Provide Shelter and ablution Facilities	11	5%
Operational Training for Taxi Drivers	8	4%
Maintain and provide new road infrastructure	7	3%
Streetlights and NMT Facilities	7	3%
Drivers need to carry enough change	5	2%
Maintain and provide new paved road network	4	2%
Improve Law Enforcement	3	1%
Overall Training for Taxi Drivers	3	1%
Provide Street Lights & NMT Facilities	3	1%
Improve safety and security at Public Transport Facilities	2	1%
Provide Affordable Public Transport System	2	1%

Provide Street Lights	2	1%
Provide Taxi Rank and ablution Facilities	2	1%
Regulate and control metered taxis	2	1%
Scheduled Public Transport Services	2	1%
Well maintained water systems at ranks	2	1%
Wi-Fi services for passengers while driving taxi	2	1%
Please install water taps and fix the roads	1	0%
Communicate standard rules for passengers	1	0%
Consult with passengers	1	0%
Implementation of NMT Infrastructure.	1	0%
Improve road network	1	0%
Law enforcement in terms of Operating Licenses	1	0%
Passengers don't want to pay for their parcels	1	0%
Provide intermodal Public Transport Facility	1	0%
Provide universal access for passengers at Public Transport Facilities	1	0%
Renew Taxi Fleet	1	0%
Road safety training for drivers	1	0%
Taxi Associations need to discipline drivers	1	0%
Taxi should use trailers during month end, more space for luggage.	1	0%
Vehicle care Training for Taxi Drivers	1	0%

Table 28: Table showing some of the suggested solutions proposed by the participants to address the main challenges.

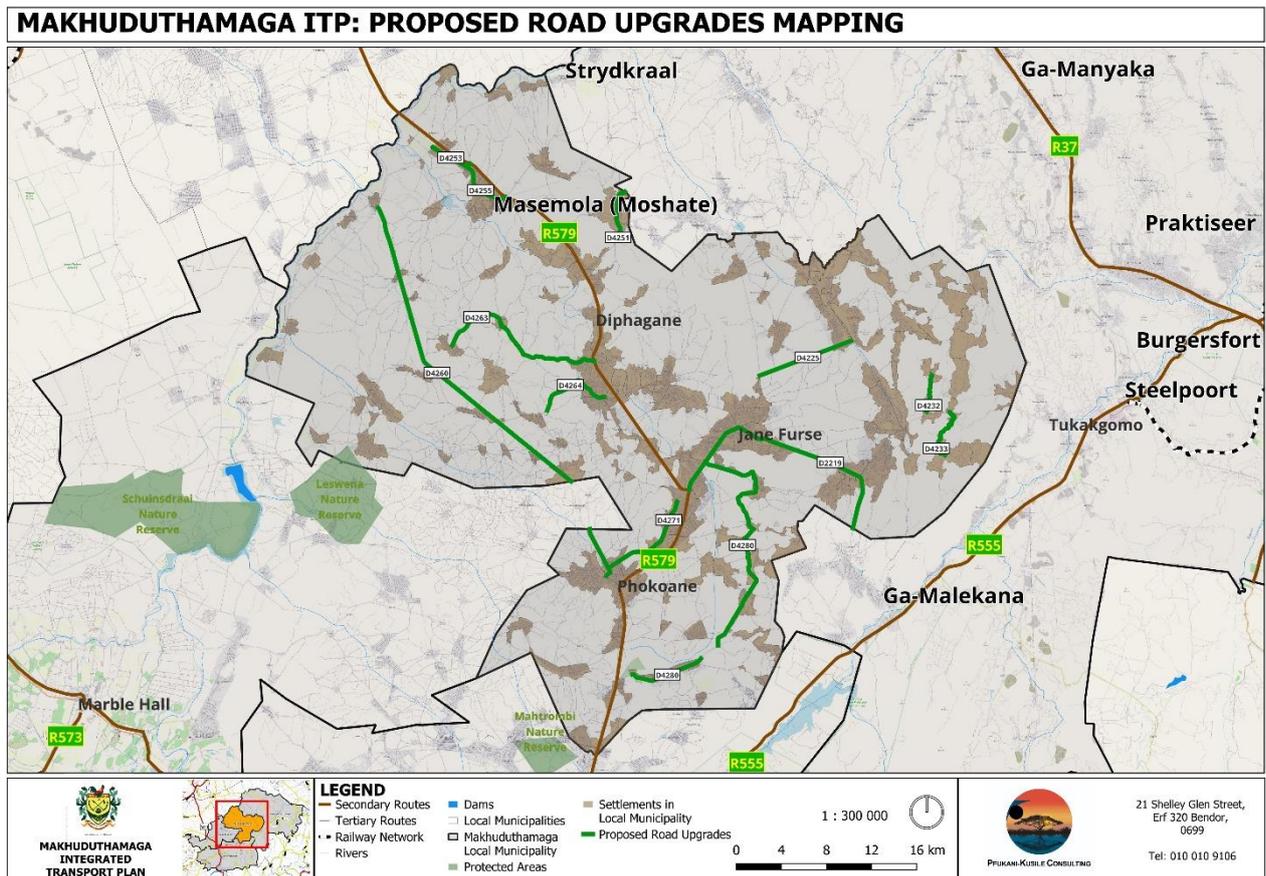
#### 5.4. Road upgrades and maintenance needs

The municipality created a roads priority list whereby roads that need to be prioritized to be upgraded or maintained, IDP 2024/25.

Priority no:	Road no.	Type of maintenance required	Road particulars	District	Local	Wards	Growth point
<b>Major access roads</b>							
1	D4260	Upgrading from gravel to tar	Malope to Phokoane	SDM	MLM	29,31,24,03	Phokoane/Apel Cross
2	D4280	Upgrading from gravel to tar	Glen Cowie via Thoto via Eensaam Leeukraal join	SDM	MLM	09,06,07,05	Phokoane
3	D4225	Upgrading from gravel to tar	Madibong to Manganeng	SDM	MLM	19,17,23	Schoonoord/Jane Furse
4	D4251	Upgrading from gravel to tar	Mashabela to Mphanama	SDM	MLM	25	Apel Cross
5	D4263	Upgrading from gravel to tar	Phaahla to Masehlaneng	SDM	MLM	24	Apel Cross
<b>Minor access roads</b>							
1	D4233	Upgrading from gravel to tar	Moela-Kgopane	SDM	MLM	14	Schoonoord

2	D4232	Upgrading from gravel to tar	Mabule	SDM	MLM	14	Schoonoord
3	D4264	Upgrading from gravel to tar	Mathapisa road to Vlakplaas to Masehlaneng	SDM	MLM	26,24,31	Apel Cross
4	D4271	Upgrading from gravel to tar	Ga-Moloi to Phokoane	SDM	MLM	29,31,24,03	Phokoane/Jane Furse
5	D4255	Upgrading from gravel to tar	Thabampshe cross to Mahubitswane	SDM	MLM	27,28	Apel Cross
<b>Preventative</b>							
1	D4253	Preventative	Access road to Masemola Clinic	SDM	MLM	27,28	Apel Cross
2	D2219	Preventative	Phokoane to Tshehlwaneng	SDM	MLM	03,05,09,0	Jane Furse/Phokoane
3	D4295	Preventative	Phokoane to Moratiwa	SDM	MLM	03, 05, 04, 0	Phokoane

Table 29: Table showing the roads prioritised by the municipality for maintenance and upgrades.



Map 49. Proposed Road Upgrades

## 6. Implications for the needs assessment analysis

The following are critical:

- Safety and security in all the facilities

- Available of public transport to all areas of the municipality
- Different types of transport systems that caters different needs of the communities
- Availability of basic infrastructure to cater for the elderly, learners, and disable public transport.
- Affordable transport to schools and work opportunities
- Planning and priority to BRT
- NMT prioritisation

## 6. PUBLIC TRANSPORT STRATEGY

### 6.1 Introduction

The Integrated Transport Plan (ITP) for the MLM heralds a pivotal juncture in the municipality's journey towards sustainable development and enhanced quality of life for its residents. Rooted in a deep understanding of the local context, this chapter embarks on a comprehensive exploration of the municipality's transport vision, objectives, and strategies, charting a course towards a more efficient, accessible, and environmentally sustainable transportation system.

The main purpose of this chapter is to articulate a clear and compelling vision for the future of transportation within the MLM, and secondly, to delineate actionable objectives and strategies aimed at realizing this vision.

By providing a strategic framework that aligns with the municipality's broader development goals and aspirations, this chapter seeks to empower stakeholders, guide decision-making processes, and catalyse collaborative efforts toward building a transport network that serves the needs of all residents equitably while fostering economic vitality and environmental stewardship.

Through a holistic approach that integrates diverse perspectives and leverages the municipality's unique strengths and resources, the initial chapters of the document lay the foundation for a more connected, resilient, and prosperous community.

### 6.2 Makhuduthamaga Local Municipality ITP Vision and Mission

#### 6.2.1 Makhuduthamaga Local Municipality ITP vision

The MLM **Integrated Development Plan** vision as stated is:

**“A Catalyst of Integrated Community Driven Service Delivery”.**

The mission of the IDP is broken down into three (3) areas:

- to strive toward service excellence
- to enhance robust community-based planning
- to ensure efficient and effective consultation and communication with all municipal stakeholders

From the above municipal vision and mission statement, a transport vision and mission statement were formulated.

#### 6.2.2 Proposed MLM ITP Vision

The proposed vision of Makhuduthamaga Local Municipality **Integrated Transport Plan** entails:

**“A Seamless, integrated and sustainable transport driven by service excellence, accessibility, and quality of life”.**

#### 6.2.3 Proposed MLM ITP Mission Statement

The proposed mission of the MLM Integrated Transport Plan is to seamlessly integrate transport systems, fostering connectivity while promoting sustainability and inclusivity. Guided by the principles of service excellence, robust community-based planning, and inclusive stakeholder

engagement, we strive to empower accountability through active community participation. By driving economic advancement and ensuring accessible, sustainable, and affordable transport services, we aim to fight poverty, inequality, and unemployment. Furthermore, we are committed to facilitating municipal transformation and institutional development while championing sustainable livelihoods through environmental management. Through these efforts, we seek to create a transport infrastructure that not only meets the immediate needs of our community but also lays the groundwork for a prosperous, equitable, and sustainable future for all.

#### 6.2.4 MLM ITP Principles

The proposed guiding principles for the Integrated Transport Plan are as follows:

**Seamless Integration:** Foster connectivity by integrating transport systems within the municipality.

**Promotion of Sustainability:** Prioritize sustainable practices to minimize environmental impact and ensure long-term viability.

**Inclusivity:** Provide accessible transport services to all residents, especially for those in rural areas, promoting equitable opportunities.

**Service Excellence:** Deliver high-quality, reliable transport services meeting community needs effectively.

**Community Engagement:** Empower accountability through active community participation in transport decision-making.

#### 6.3 MLM ITP objectives

The objectives for the Makhuduthamaga Local Municipality Integrated Transport Plan (ITP) are as follows:

- **Improve Accessibility:** Enhance access to transportation services for residents living in rural areas, ensuring connectivity to essential services, markets, and employment opportunities.
- **Address Mobility Challenges:** Identify and address mobility challenges faced by rural communities, such as limited transport options, long travel distances, and inadequate infrastructure.
- **Promote Sustainable Transport:** Implement sustainable transport solutions tailored to rural settings, including initiatives like rural public transit, cycling infrastructure, and ridesharing programs to reduce environmental impact and promote healthy lifestyles.
- **Support Economic Development:** Develop transport strategies that support economic development in rural areas, facilitating the movement of goods and services, promoting tourism, and attracting investment.
- **Improve Road Safety:** Implement measures to improve road safety in rural areas, including road maintenance, signage, and education campaigns to reduce accidents and fatalities.
- **Ensure Affordability:** Ensure that transportation services remain affordable for rural residents, considering their typically lower income levels and the importance of access to essential services.
- **Integrate Technology:** Explore the integration of technology solutions, such as mobile applications for booking rides or accessing transit information, to improve the efficiency and accessibility of rural transportation services.

- **Preserve Local Culture and Heritage:** Consider the cultural and heritage aspects of rural communities when planning transport initiatives, ensuring that they respect and preserve local traditions and landscapes.
- **Build Resilience:** Develop transport infrastructure and systems that are resilient to the unique challenges faced by rural areas, such as extreme weather events and geographic isolation, to ensure continuity of services during emergencies.

## 6.4 Implications

Creating an Integrated Transport Plan for the municipality presents several implications:

- 6.4.1 Addressing Road Congestion:** Given the constant congestion, prioritizing strategies to alleviate traffic congestion becomes imperative. This may involve measures such as road widening, implementing traffic management systems, and optimizing traffic flow patterns to mitigate congestion hotspots and enhance overall road capacity.
- 6.4.2 Improving Road Infrastructure:** As most roads are gravel, upgrading and maintaining road infrastructure is essential to improve accessibility, reduce travel times, and enhance road safety. Investing in road surfacing and maintenance projects will be crucial for improving the quality and reliability of transportation routes within the municipality.
- 6.4.3 Managing Informal Markets:** Informal markets bordering the roads contribute to congestion and pose challenges for traffic flow. Developing and improving on the existing designated market areas and implementing regulations to manage informal trading activities can help alleviate congestion and ensure the safety of both traders and road users.
- 6.4.4 Supporting Informal Economy Expansion:** Creating opportunities for the expansion of the informal economy, while mitigating its negative impacts on road congestion, requires innovative approaches. This may involve providing designated spaces or infrastructure to accommodate informal businesses, fostering entrepreneurship, and integrating informal economic activities into urban planning initiatives.
- 6.4.5 Further Regulating Minibus Taxis:** Minibus taxis that do not adhere to traffic rules exacerbate congestion and compromise road safety. Enhancing enforcement mechanisms, promoting driver education and training, and fostering collaboration with taxi associations can help improve compliance and mitigate the negative impact of informal transport on road congestion.
- 6.4.6 Exploring Alternative Transport Solutions:** In the absence of a Bus Rapid Transit (BRT) system, exploring alternative public transport solutions tailored to the municipality's needs becomes crucial. This may involve enhancing existing public transport services, exploring demand-responsive transport options, and considering innovative transport solutions suitable for rural and remote areas.

**6.4.7 *Promoting Sustainable Transport:*** Introducing sustainable transport initiatives, such as promoting non-motorized transport modes like cycling and walking, can help reduce reliance on motorized transport, alleviate congestion, and promote healthier and more environmentally friendly modes of travel.

In summary, creating the MLM ITP presents an opportunity to address the complex challenges posed by road congestion and informal economic activities while laying the groundwork for a more efficient, safe, and sustainable transport system tailored to the unique needs of the rural municipality.

The main objective of the municipality's Public Transport Plan (PTP) revolves around the seamless integration of the public transport ecosystem, encompassing networks, services, and modalities, across the expanse of the MLM and its surrounding functional domains. Integral to this endeavour is the comprehensive development of the Integrated Public Transport Network (IPTN) Plan, a pivotal component of the PTP's strategic framework.

In charting the course for the IPTN Plan's development, critical insights gleaned from analogous municipalities akin to the municipality have been meticulously distilled. These key lessons underscore several fundamental principles:

- The inherent challenge of accurately prognosticating the future, particularly in the long-term, necessitating a flexible and adaptive planning approach.
- The imperative of acknowledging and addressing uncertainties and risks in planning endeavours, as disregarding them undermines the resilience and efficacy of the plan.
- The intricate web of fragmented responsibilities governing public transport, spanning various levels of government, poses formidable hurdles to cohesive planning and implementation efforts.

Mindful of these invaluable lessons, the proposed ITP is poised to adopt a multifaceted methodological approach, tailored to ensure its relevance and efficacy. Embracing the concept of planning amidst uncertainty, the plan will pivot towards cultivating resilience rather than merely optimizing outcomes. Moreover, the implementation strategy will espouse an incremental approach, characterized by judicious temporal and modal considerations along key transport corridors and routes, fostering adaptability and responsiveness to evolving needs and dynamics.

## **6.5 Multimodal integrated public transport approach**

The intermodal transport approach within the MLM, considering its rural nature should include various modes of transport to provide complementary, seamless, and sustainable transport services within the municipal area. The following shortcoming regarding transport services should be noted:

- The absence of rail transport within the municipal area
- The absence of air transport within the municipal area
- The absence of reliable bus transport, which is a backbone of public transport, considering the socio-economic status, especially the low-income households.
- Reliance on taxis and private transport as means of travel and commuting to work, schools, and other destinations.

Reference to the municipality, multimodal transport system, should include walking, cycling, automobiles, public buses, etc., and connections among modes so that each can play its optimal role in the overall transport system.

This could assist to transform the municipality considering the higher population densities, specially within the main town of Jane Furse and its surroundings.

The intermodal ITP could assist to reduce congestion on the main R579 road, greater convenience for commuters, efficiency, and cost effectiveness. An effective Multi-Modal approach should meet the following requirements and objectives as per Pillay and Zly, 2000.

- Higher priority to public transport with sufficient facilities and services, utilization of scarce resources and expensive infrastructure.
- Focus on the movement of people and not on the modes, and integration of transport and land use,
- Cooperation among and support of different government levels and various modes.
- Availability of funds through public-private-partnership (PPP) and clarity on policy of government.
- Formalization and regulation of public transport, legislative framework on national, provincial level, right institutional structures.
- Proper public transport planning and vision.

As a result of the above the MLM ITP multi modal public transport approach will encompasses the following:

#### **6.5.1 Minibus taxis and emerging transport services**

Minibus taxis and emerging transport services, which will provide the majority of feeder and distribution services. Interrelationship between the minibus taxis and other modes of transport should be created. The commuters should be able to link different destination utilizing the minibus taxis and other emergent within the municipality. From the analysis made, major feeders are to regional and national destinations.

#### **6.5.2 Dedicated NMT Needs**

Non-motorized transport can be categorized into ordinary walking, cycling and animal drawn transport projects. The surveys undertaken highlighted that that non-motorized transport is unavoidable within the municipal area, as a result, there is therefore a need to promote this important mode of transport.

#### **6.5.3 Bus Rapid Transit (BRT)**

BRT is increasingly utilized as a means of urban transport in the country. BRT contains features like light rail or metro system, it is more reliable, convenient and faster than regular bus services. The three main delays facing public transport are:

- boarding and alighting,
- intersections, and
- traffic congestion.

BRT solves for all three with dedicated roadways and median stations and scheduled formal bus services (referred to as quality bus services), with enhanced features, which operate mostly in mixed traffic (Jane Furse), but with prioritization measures, including queue jumping infrastructure and dedicated bus and minibus taxi (BMT) lanes, where feasible. Quality bus services will provide feeders to the trunks as well as direct services across the municipal area.

This is in line with the NLTA, 2009, which requires all planning authorities to plan, implement and manage modally Integrated Public Transport Networks (IPTNs). An IPTN is defined in the NLTA as a system in a particular area that integrates public transport services between modes, with through ticketing and other appropriate mechanisms to provide optimal solutions that enable travel from origins to destinations in a seamless manner.

The National Public Transport Strategy, 2007 and its Action Plan provides a vision of moving from basic public transport commuter operations to accelerated modal upgrades and the establishment of Integrated Public Transport Networks in the major areas of South Africa. In support of this strategy, the MLM should develop different transport plans that provides the basis for strategic intervention and investment, related to all modes of public transport, and is referred to collectively as the IPTN. The formulation of the municipal IPTN will integrate all the multimodal transport system approach.

The proposed integrated network should cater for the movement of people, goods, and services (Button et al, 2010:287). In turn it will be able to create liveable spaces, i.e., work, play, stay, etc. Attention should be given to the following factors:

- An integrated network
- Integrated schedules
- Proper transfer facilities
- A combined information system, including Call Centres

## **6.6 An Integrated Public Transport Network (IPTN)**

From the survey undertaken, it is clear about the development an integrated network of public transport routes catering for current demand and future trends, including trunk routes and feeder routes recommending a preferred network alternative, especially within the Jae Furse Area. This forms the basis of future public transport planning, including corridor planning and local area planning. This will also confirm regarding the inter and multi modal facilities to be located and integrated with all forms of transport.

The IPTN will be the mechanism by which public transport is transformed to provide amongst others:

- Integrated transportation services across all modes.
- The appropriate choice of mode per route or corridor based on demand.
- Extensive municipal coverage of public transport network.
- Scheduled and reliable public transport services.
- Reduced competition between modes along routes.
- Coordinated land use and transport planning, implementation, and management.
- Centralized management of public transport at local municipality level.

### **6.6.1 Integrated Schedules**

The formulation of the operational parameters and service design including fleet type, fleet numbers, headways, operating speeds, express services, station types, hours of operation, size of stations and depots to be prioritised.

### **6.6.2 Proper Transfer facilities**

The transfer system to be formulated should cut across all the forms of transport within the municipal area. Considering the mini bus taxis that are currently utilised within the MLM public transport system, the integrated transfer facilities should be developed compatible with the needs of the communities, especially within the remote areas of the municipality.

### **6.6.3 Overall network design**

The proposed overall transport network design within the municipal area should be based on the needs of the communities regarding the transport system and the various destinations. This network should include the Minibus, proposed BRT, buses, private and include NMT needs. The network design will have to be phased out and priority given to R579 and other municipal nodes.

SANRAL has appointed an engineering services company to undertake the planning of the R579. The planning designs should be incorporated within the integrated and consolidated transport network design.

## **6.7 Public Transport Implementation Strategy**

The implementation of public transport within the municipal area should be based on an 'incremental' approach to ensure that public transport improvements such as transport facilities, transport routes, policy alignments and development of supporting plans before the larger investments required by the introduction of formal BRT especially within the R579.

The incremental approach will be aligned with the municipal budgets and allow other stakeholders within the public transport to incorporate the plans in the district and provincial including national budgets.

The prioritization of all the requirements of seamless and integrated transport system will become critical. The prioritization will ensure that improvements and development of passenger safety, security, convenience and shelters at taxi ranks, regulated services, improved scheduling, priority public transport lanes through critical intersections, development of non-motorized transport facilities and better information systems are undertaken.

The anticipated implementation plan will include the responsible entities (national, provincial, district and local entities including the mining industries), their roles and functions, available budget/Grants and areas that potential budget can be sourced, timeframes, institutional arrangements and others.

## **6.8 Contracted Services Plan (e.g. buses)**

Currently, the municipality does not have any contracted bus services that runs within the municipal area. The buses that operate within the borders of the municipality are contracted by the private

mines that operate outside of the jurisdiction of the municipality, however, have staff that live within the municipality.

## **6.9 Operating Licenses Plan (OLP)**

An Operating Licenses Plan (OLP) guides the awarding of operating licenses (OLs) for road-based Public Transport Services within the municipal area. An Operating License is defined in terms of section 50(2) of the National Land Transport Act, 5 of 2009 as a document “authorizing the vehicle to which it relates, to operate more than one service or type of service”.

The MLM should devise a plan that will enable the relevant institutions, i.e., provincial and district in ensuring that operating licenses are issued to the right applicants or prospective operators at the right time without undermining the responsibility of the municipality in this regard.

Section 20(1) of the National Land Transport Act, Act No.5 of 2009 which prescribes the competencies of persons required to manage a Public Transport Regulator.

### **6.9.1 Purpose of Operating License Plan**

The primary purpose of an Operating License Strategy is to set out the Municipality’s policies and strategies in relation to:

- The role of each mode for different areas, routes, and corridors.
- The circumstances under which the operation of the preferred mode of public transport should be allowed.
- The number of operating licenses that should be allowed for each area or route.
- The adequacy of public transport facilities within the area; and
- The conditions which should be imposed in respect of operating licenses.

### **6.9.2 Issuing of Operating Licenses**

Section 62(1) states that an Operating License may only be issued if the applicant:

- Has applied in terms of this Act and applicable provincial laws.
- Has furnished a valid tax clearance certificate from the South African Revenue Service certifying that his, her or its tax affairs are in order.
- Has signed the statement to the effect that he or she will comply with labor laws in respect of drivers and other staff, as well as sectoral determinations of the Department of Labor.
- Has submitted a current roadworthy certificate, which was issued for the vehicle not earlier than the prescribed point in time, or a duly certified copy of such a certificate, as well as proof that the vehicle is properly licensed and has a national information system model number allocated to it.
- In the case of renewal, transfer, or amendment, has returned the previous license issued for the same service to the entity issuing it.
- Has submitted proof of insurance cover as prescribed.
- Has submitted any other proof, information, or document as prescribed or required by the relevant entity.

An operating license must contain the prescribed particulars, and the Minister may prescribe that a tag, electronic card or other device or equipment be issued with an operating license and kept in or on the vehicle, as well as an issuing fee for the license or such tag, card, device, or equipment.

### 6.9.3 Application Processes

An Operating License must only be issued on application made in terms of this Act by the National Public Transport Regulator, a Provincial Regulatory Entity or a Municipality to which the Operating License function has been assigned, as the case may be, after considering all the factors mandated by the Act, including the following:

- New Applications
- Cross Border Applications
- Learner Transport Applications

### 6.9.4 All Applicants for Operating Licenses

All applicants for Operating Licenses are required in terms of the National Land Transport Act, 5 of 2009, to do the following:

- Produce valid Tax Clearance Certificate.
- Has furnished a valid tax clearance certificate from the South African Revenue Service certifying that his, her or its tax affairs are in order.
- Has signed the statement to the effect he or she or it will comply with labour laws in respect of drivers and other staff, as well as sectoral determinations of the Department of Labor.
- Has submitted a current roadworthy certificate, which was issued for the vehicle not earlier than the prescribed point in time, or a duly certified copy of such a certificate, as well as proof that the vehicle is properly licensed and has a National Information System Model number allocated to it.
- In the case of renewal, transfer, or amendment, has returned the previous license issued for the same service to the entity issuing it.
- Has submitted proof of insurance cover as prescribed.
- Has submitted any other proof, information, or document as prescribed or required by the relevant entity.
- An operating license must contain the prescribed particulars, and the Minister may prescribe that a tag, electronic card or other device or equipment must be issued with an operating license and kept in or on the vehicle, as well as an issuing fee for the license or such tag, card, device, or equipment.

### 6.9.5 Standard Operating Procedures

The Standard Operating Procedures (SOP) supported by the District Integrated Transport Plan processed data should include the following:

- Modal facility utilization information
- Route utilization statistics/frequency level of vehicles operating from a particular intermodal facility.
- The static capacity and status of the intermodal facility

After having scrutinized the District Integrated Transport Plan, the Sekhukhune District Municipality, as a Type 2 Planning Authority, is empowered in terms of Section 55(2) which states, “The Planning Authority must in the prescribed format:

- Indicate whether there is a need for the service on the route or routes or in the area or areas in terms of its Integrated Transport Plan or not, and, if there is a need for such service, direct the National Public Transport Regulator or a Provincial Regulatory Entity to grant the Operating License and make any recommendations it considers fit regarding conditions to be attached to the Operating License, having due regard to its Integrated Transport Plan, and its Integrated Transport Plan is not yet finalized or is inadequate, it must take the decision based on due inquiries and investigations carried out by it and
- Submit such response to the National Public Transport Regulator or a Provincial Regulatory Entity, within the prescribed period or the period stipulated in the notice.

#### **6.9.6 Operating Licenses for Public Transport Services provided in Transport Plans**

After having applied to the National Public Transport Regulator or Provincial Regulatory Entity, it is for the said entity to consider any of the submitted applications for the granting, renewal, amendment, or transfer of an Operating License, other than a tourist transport service or charter service, and other than a contracted service. It must by notice in the prescribed manner inform all Planning Authorities in whose areas the services will be operated of the application with the request to give directions regarding the application based on its Integrated Transport Plan within the period stated in the notice.

#### **6.9.7 Regulatory Functions of MLM**

The Sekhukhune District Municipality or local municipalities under its jurisdiction may be allowed to execute an Operating License Strategy. The execution of this function is supported by Section 18 (1) of the National Land Transport Act, Act No.5 of 2009, which set out regulatory functions of the municipalities with respect to the execution of an Operating Licensing function.

Section 11(2) of the Act states that the municipality “must receive and decide on applications relating to Operating Licenses for services wholly in their areas of jurisdiction, excluding applications that must be made to the National Public Transport Regulator or a Provincial Regulatory Entity.

#### **6.9.8 Operating Licenses for Contracted services**

Section 56(1) states that where a contracting authority has concluded a negotiated contract, subsidized service contract or commercial service contract with an operator, the relevant regulatory entity, must issue to the operator an operating license for each vehicle involved in the contract, or where the operator already has an operating license for such a vehicle, such entity must amend the operating licenses if necessary to accommodate the services in the contract.

The authority conveyed by an operating license must be made specific to the contract and be for the validity period of the contract, but an operating license may authorize services in addition to those stipulated in the contract. Where a contract is amended so as to change the authority conveyed by the operating licenses, or to extend the duration of a contract, the relevant regulatory entity must amend the relevant operating licenses accordingly.

### 6.9.9 Maximum Validity

An operating license is valid for a maximum period of seven years. Operating licenses must be granted for a fixed period determined by the entity granting them, where applicable based on the direction of the planning authority. In determining the validity period of operating licenses for non-contracted services, the following must be considered:

- Current and envisaged trends in utilization on the route or routes, or, where applicable, in the area concerned.
- The efficiency of the proposed services in meeting user needs.
- Where applicable, the likelihood that in future the service may no longer be required in terms of the integrated transport plan.
- The likelihood that the service may become the subject of a commercial service contract or a subsidized service contract.

### 6.9.10 Renewal

Section 58(1) states that the holder of an operating license issued by a regulatory entity may apply to whichever of those entities that issued the license for renewal, amendment, or transfer of the operating license.

Section 58(2) provides that where an operating license or permit was issued by a Provincial Operating Licensing Board or other competent entity before the date of commencement of this Act, the holder may apply for renewal, amendment or transfer thereof to the relevant entity.

### 6.9.11 Publication of decision

Section 59(1) provides that regulatory entities must, in the prescribed manner, give notice of receipt of an application for or in connection with an operating license, except a decision to replace a vehicle and in that notice state the prescribed particulars and allow interested persons an opportunity to comment and make representations within the prescribed period.

Such entity must duly consider all comments and representations received that are daily submitted and are relevant in dealing with the application. Where no relevant and substantial objections are received in respect of an application, it may be disposed of summarily and where such objections are received the entity must request further information or hold a hearing in the prescribed manner before taking a decision on the matter.

### 6.9.12 Special Events

No person may undertake a public transport service to or from a special event except in the course of operating a courtesy service or tourist service that complies with the Act. In the case of where a temporary operating license is issued to operate special events, it may be issued only for one special event and for a period that is not longer than the duration of such event, including time needed for preparing for it before the event and transporting passengers to airports, stations and other transfer facilities after the event. A temporary operating license must:

- Specify the special event and the date or dates on which it occurs.
- Where feasible, state the route or routes on which the transport to and from the special event may be provided.
- Where appropriate specify the terminals, ranks or stopping places that may be used.

A temporary operating license may be issued with a special distinguishing mark which must be affixed to the vehicle to which the licensee relates in the prescribed manner for the duration of the public transport to and from the special event.

### 6.10 Long Distances Services

In the case of an application for the granting, renewal or amendment of an operating license relating to a long-distance service, due regard must be had to the provisions of any integrated transport plan, where they are relevant, and to any applicable provincial laws, and it must be subject to:

- The extent to which the service to be provided is necessary or desirable in the public interest.
- The requirements of the public for the service along the route or routes on which or the area in which the applicant proposes to operate.
- The existing transport facilities available to the public on that route or those routes or in that area
- The need to ensure co-ordination of all forms of transport, including transport by rail, to achieve an economically sound balance between the transport modes, with due regard to the public interest.

Operating licenses for long distance services other than charter or tourist transport services must specify the authorized origin and destination points, the ranks, or terminals for the picking up and dropping off passengers and any other points along the route or routes where passengers may be picked up or dropped off.

### 6.11 Metered Taxi Services

Section 66(1) states that “in the case of a metered taxi service,

- The entity granting the operating license may specify an area for picking up passengers.
- If the operating license or permit specifies such an area, the vehicle may leave that area if, on the return journey, it is to carry the same passengers that it carries on the outward journey or if the vehicle is to return empty.

The vehicle may pick up passengers outside of that area if the fare is pre-booked and the passengers will return to such area.

- Any journey may be operated at a fare not determined by the meter if the fare for that journey has been agreed upon before the journey begins, but the meter must be kept running for the information of passengers.

### 6.12 Staff Services

Section 68(1) provides that the Minister may, prescribe the circumstances in which an operating license is required for staff services. In the case of staff services to be provided on a regular basis, the operating license must specify the route, routes or area authorized.

### 6.13 Lifts Clubs

Section 69(1) provides that the Minister may make regulations on the requirements to qualify for a lift club, or operating such clubs, including, but not limited to:

- The requirement that written confirmation from the employer or other documentation must be kept in the vehicle.
- The requirement that lifts clubs must be registered with planning authorities or other entities
- Requirements relating to insurance.

Such regulations may relax the requirement that each member of the lift club must take a turn to convey the others, if sufficient safeguards are provided to prevent abuses and protect passengers.

#### **6.14 LDVs**

The municipal area comprised of rural areas and operators of public transport vehicles experience challenges in accessing some of these rural areas. In this case, adapted light delivery vehicles is used and this is provided in Section 71 of the National Land Transport Act, Act No.5 of 2009 where it states that “adapted light delivery vehicles may be used for public transport services in a particular area in prescribed circumstances where there is no other appropriate or acceptable public transport, and subject to prescribed conditions”.

#### **6.15 Scholar Transport**

Section 72(1) of the National Land Transport Act, Act No.5 of 2009 can be applied to scholar transport which include students/pupils, teachers/lecturers and is outlined as follows:

...where a public transport service is dedicated to transporting scholars, students, teachers or lecturers, the Minister may prescribe regulations on special requirements for those services, including, but not limited to:

- Requirements for supervision of scholars
- Special requirements for drivers
- Requirements for insurance
- Documents that must be kept in the vehicle and special vehicle markings or livery.
- Requirements that drivers of other vehicles must stop those vehicles in the vicinity of vehicles loading or offloading scholars or students.

#### **6.16 Public Transport operational Strategies (Rat Plan)**

In any public transport competitive battleground where the routes are almost saturated, Section 39(1) of the National Land Transport Act, Act No.5 of 2009 intervenes as a relief to empower the planning authority where possible to:

- Offer the operator an alternative service, or
- Allow the operator to continue providing the service and impose a moratorium on the issuing of new operating licensees on the route.

If required, i.e. if there are subsidized bus services in the area, a Bus Rationalization Plan must also be prepared. Rationalization Plans will only be required from those Type 2 Planning Authorities with subsidized bus contracts operational in their area. The Rationalization Plan aims to:

- Rationalize subsidized services by minimizing competition between subsidized services, including services across the borders of Planning Authorities; necessary where and to what extent these should be paid.
- Promote competitive bidding for contracts.
- Ensure that routes and route networks are utilized optimally to meet passenger need; and
- Facilitate the future development of the public transport system.

#### **6.17 Implications for the Public Transport Plan**

The MLM future public transport system should follow an integrated approach that ensure that the land use structure supports an efficient and thus affordable public transport system. The location of economic areas such malls, schools and services should be accessible to public including to the special needs for special groups of people, i.e. learners and disabled persons must not be forgotten. The public transport system must in the future be accessible to *all* people.

It should be noted that the proposed plan should be able to provide good access to activities in the community which will in turn have a positive impact on the possibilities for social and economic development.

Safety to commuters should also be prioritized, i.e. safety and personal security, roadworthy vehicles and a safer environment, will contribute to the overall increased safety of the passenger.

## 7. TRANSPORT INFRASTRUCTURE STRATEGY

### 7.1. Introduction

The MLM Transport Infrastructure Strategy deals with the development and maintenance of all types of transport infrastructure. It focuses precisely on the status quo of the public transport road network, modal facilities and improvements that are needed to make them user-friendly and sustainable.

The previous chapters of the report highlighted major roads (R579, R555, R579 and the R37) that traverse the municipal area connecting it with other municipalities, provinces, and other areas outside the municipal area.

The highest concentration of both private and public transport is in Jane Furse and on roads R37 and R579. Continuous maintenance of the roads should be given priority. The transport infrastructure under discussion should include the following:

- Major Roads (i.e. excluding lower order residential roads)
- Public Transport Facilities
- Dedicated Lanes for Public Transport
- Non-Motorized Transport Infrastructure

Jane Furse is the main economic Centre in the municipal area and the R37 and R579 are feeder routes to villages and mines. The strategy should consider the traffic congestion in Jane Furse.

Further consultation with SANRAL and RAL to confirm the planned upgrades and maintenance of the roads have been planned and this section will be updated. The following are maintenance works required for unpaved roads:

- Grading.
- Spot gravelling; and
- Re-gravelling.

For paved roads, the following are the types of maintenance required:

- Routine pavement works.
- Preventive treatment works; and
- Resealing and Rehabilitation works.

### 7.2. Road Infrastructure

As per the assessment made, the focus for the MLM ITP concerning transport infrastructure related projects is:

- Arterial Road R579.
- Jane Furse Transport Network System.
- Public Transport Facilities related to:
  - Secondary Development Node: Glen Cowie.
  - Secondary Development and Agricultural Node: Apel Cross / Ga Masemola.
  - Local Service Node: Nebo / Phokwane.
  - Local Service Node: Vleischboom.

- Local Service Node: Moratiwa.
- Local Service Node: Magnet Heights.
- Local Service Node: Schoonoord.

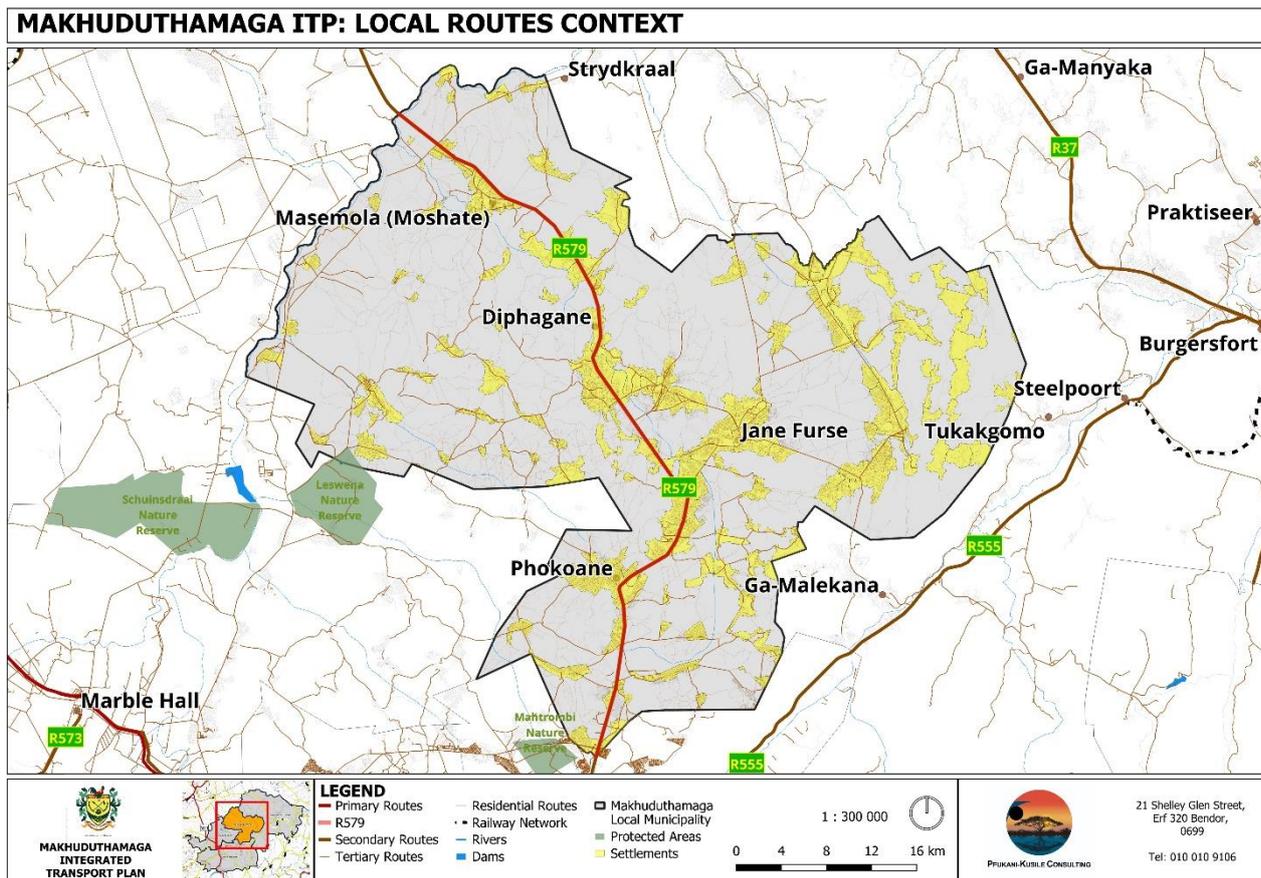
### **7.2.1. Primary Arterial Road R579**

Road R579 is a SANRAL Class 2 Road and previously belonged to Limpopo Province Roads Agency (SOC). Nyeleti Consultants is appointed by SANRAL to implement the upgrades of R579 road with specific reference to traffic, transport related input, and informal trading along the road. Typical information collected are:

- Road characteristics (number of lanes, intersections, lights, Non-motorized Transport (NMT), public transport facilities, vertical elevations and speed profile, accident statistics).
- Manual traffic counts.
- Electronic counts.
- Latent rights and possible future developments:

The following road characteristics are also determined as part of the scope of the work:

- Project Limits.
- Road Ownership.
- COTO, Road Classification.
- Posted Speed.
- Cross-section.
- Streetlights.
- Public Transport Facilities.
- Formal and Informal Accesses.
- Direct access to properties.
- Road Safety.



Map 50: Map showing the R579 route and the R555 route

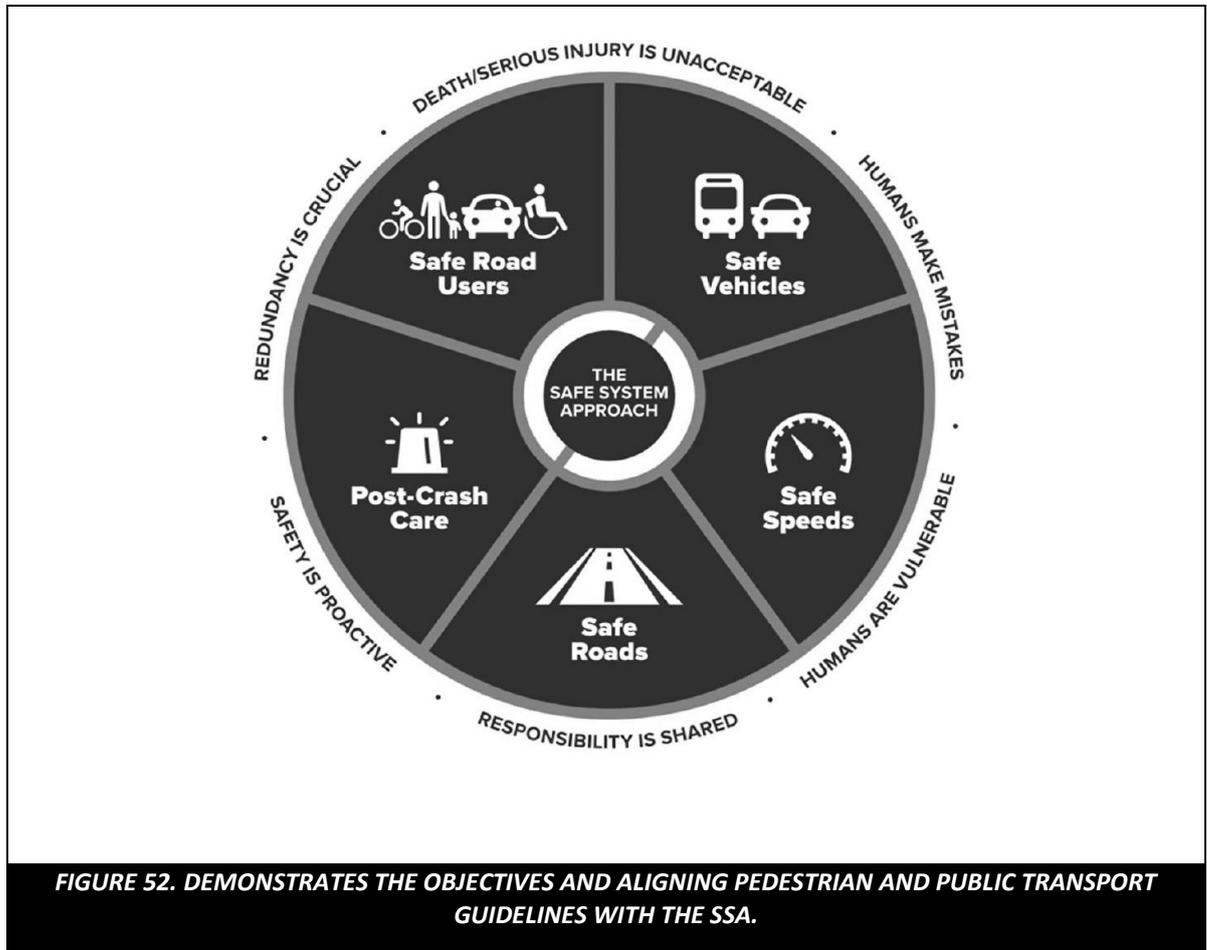
## 7.2.2. Design Considerations

The Important Design Considerations Related to NMT and Public Transport:

SANRAL developed *Guidelines for Pedestrian and Public Transport Facilities on National Roads*. The focus of the guidelines was to ensure the alignment of “NMT GUIDELINES WITH SAFE SYSTEMS APPROACH” (SSA). It is important that universal access guidelines should also be incorporated as part of the provision of NMT facilities as part of the road design process.

The SANRAL *Guidelines for Pedestrian and Public Transport Facilities on National Roads* allows pedestrians and cyclists (NMT) to use Class 2 and 3 roads. The NMT can be accommodated in the road reserve and separate facilities can be provided in the form of a paved footpath or cycle path, depending on several road characteristics; also refer to NMT Facility Guidelines 2014 standards.

**The below figure** demonstrates the objectives and aligning *Pedestrian and Public Transport Guidelines* with the SSA.



The following will be relevant in the upgrade of R579 from a traffic engineering perspective:

- NMT and universal access infrastructure are important elements of road infrastructure.
- The NMT should be integrated with other modes of transport as part of the Road System Design.
- To stimulate the segregation of vehicular and NMT traffic.
- To improve road safety.
- To allow for landscaping (improvement in the visual character of the road).

Typical new data that are collected includes:

- Input from MLM and Community.
- Manual Traffic Counts.
- Electronic data surveys
- Non-Motorized Traffic Counts.
- Public Transport operations and facilities.
- Locality of government facilities.
- Observations as part of the physical evaluation of the road.

### 7.2.3. Past Traffic Loading

Historic data based on electronic Count Stations are used to determine the traffic loadings and growth on the relevant road sections for Road R579. Typical information to be collected:

- Average Daily Traffic (ADT).
- Average Daily Truck Traffic (ADTT).
- 30<sup>th</sup> highest volume.
- Annual traffic volumes (total vehicles).

### 7.2.4. Future Traffic Growth Rates

The future traffic growths are determined from the historical traffic data collected.

### 7.2.5. Estimated Future Traffic Volumes on Main Line

The future traffic growth rates are normally calculated for a period of between 20 and 30 years from the base year that relates when construction will be completed.

A sensitivity analysis is also conducted for the design period, should the traffic growth be lower or higher than the historic data.

### 7.2.6. Access Management Plan

An important document to be prepared is the Access Management Plan. The following are relevant concerning the Access Management Plan:

- Relevant Guideline Document.  
*COTO TRH26 South African Road Classification and Access Management Manual, Version 1.0, May 2018* Urban areas of typical road characteristics and access management requirements for various categories of roads.
- Determine Alternative Scenarios for Access Management Master Road Network Plans for Road R579. Alternative scenarios are developed for the Access Management Road Network Plan for Road R579, to allow the Project Team to make informed decisions.

**The table below** provides the typical attributes for the Road R579 Access Management Plan.

TYPICAL ATTRIBUTES FOR RELATED TO THE ACCESS MANAGEMENT PLAN FOR ROAD R579	
Item	Attribute
1.	Design Speed.

TYPICAL ATTRIBUTES FOR RELATED TO THE ACCESS MANAGEMENT PLAN FOR ROAD R579	
Item	Attribute
2.	Basic Function of Road.
3.	Road Class Number
4.	Road Class Name.
5.	Direct Access to properties allowed.
6.	Access Spacing.
7.	Access roads to broader community.
8.	Need for Service Roads.
9.	Public Transport Infrastructure.
10.	Non-Motorized Transport (NMT) Infrastructure.
11.	Universal Access as part of the design and construction of Public Transport and NMT Infrastructure.
12.	Intersection Control.
13.	Overhead Lights.
14.	Typical Cross Section.
15.	Traffic Calming.

Table 30: Table showing the typical attributes for related to the access management plan for road R579

### 7.2.7. Traffic Capacity and Level of Service on Mainline

The purpose of the determination of Traffic Capacity and Level of Service on the mainline, is to determine of additional lanes are required within the design period of Road R579.

The capacity is normally analysed based on the *Highway Capacity Manual* (2010) methodology. Based on the *Highway Capacity Manual* (2000), the maximum capacity for a two-lane highway (one lane in each direction).

### 7.2.8. Traffic Capacity Analysis for Intersections

The Capacity Analysis for intersection determine the intersection layouts required for the design period for different scenarios.

### 7.2.9. Estimated Future Traffic Loading

The estimated future traffic loading is the process to determine the number E80s required per ES Class, for the projected cumulative pavement loading for the design life of Road R579.

### 7.2.10. Other planning disciplines

Amongst other the following are relevant:

- a) Pavement evaluation.
- b) Material sources.
- c) Road cross sections.
- d) Road Geometry.
- e) Drainage.
- f) Structures
- g) Land Acquisition.
- h) Environmental obligations.
- i) Economic evaluation.

### 7.3. Jane Furse Transport Infrastructure System

Jane Furse is served by public transport in the form of busses and taxis which connects to local settlements and regional settlements outside the MLM to areas such as Polokwane, Fetakgomo-Tubatse, Mpumalanga and Gauteng. There are formal and informal taxi ranks in the node, however, the provision of taxi ranks is not sufficient to meet the demands of the sector.

The municipality, in conjunction with Roads Agency Limpopo, should make provision of a dual carriage way road leading to the CBD to address the challenge of traffic congestion targeting the D2219 in both directions that is between Jane Furse and Moratiwa south wards and be-tween Jane Furse and Magnets Heights north-east wards.

Feasibilities for road by-pass should be explored for the town of Jane Furse to ease the CBD of the uncontrollable traffic congestion in the area. However, such feasibilities should factor the cost benefit analysis to ensure that existing businesses in the CBD do not suffer from loss of business because of the redirection of traffic and customers from the town centre.

This SDF proposes the undertaking of a detailed traffic impact study for the Jane Furse node. This study should explore various interventions that could be explored to unlock the movement challenges faced by this primary node. The study should also make provision for improved pedestrian movement in the CBD. Another proposal is the provision of sidewalks

and pedestrian facilities with associated street furniture such as street benches to encourage side walking and cycling. This should be coupled with the provision of facilities for cycling. The following concept interventions are proposed for the Jane Furse Cluster:

- a) Development of Intermodal Public Transport Facility.
- b) Improve / Upgrade other Public Transport Facilities in Town.
- c) Link other Public Transport Facility in CBD with Intermodal Public Transport Facility.
- d) Implement NMT walkways and bicycles ways to link with Public Transport and Origins / Destinations.
- e) Provide street furniture, information signs, traffic signs and lights.
- f) Formalise Hawker Facilities inside and outside Public Transport Facilities.
- g) Identify strategic areas to accommodate hawker Facilities.
- h) Provide security cameras and security personnel.
- i) Traffic Law enforcement for private and public transport modes.
- j) Implementation of a one-way street system.
- k) Implementation of a ring road around the core of the CBD.

The below figures contain the following:

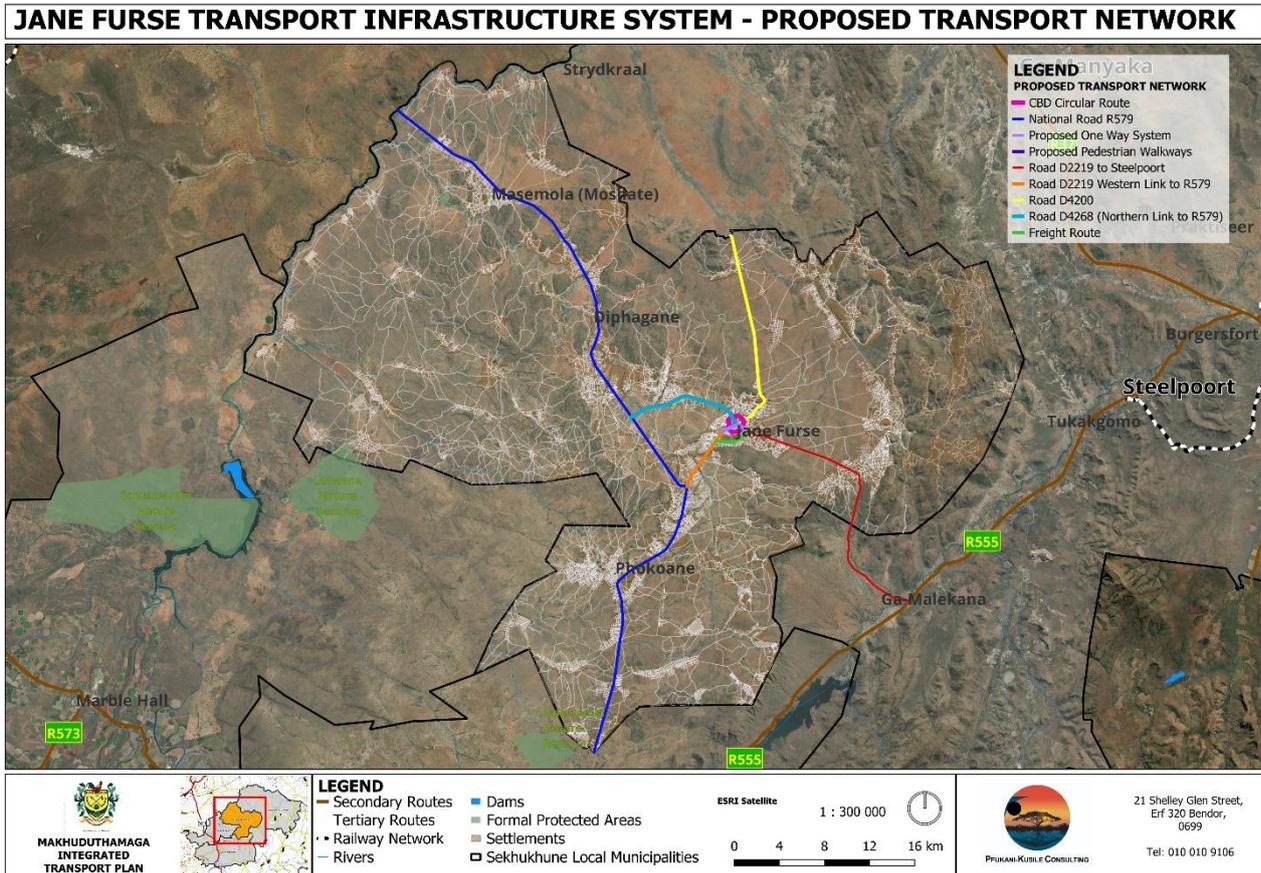
- a) Main Roads Entering the CBD of Jane Furse
- b) Proposed Transport Network for Jane Furse Cluster
- c) Proposed One-Way System for And Ring Road for Jane Furse CBD
- d) Proposed Intermodal Facility Jane Furse CBD

**The below table** contains the steps required to implement transport Infrastructure in Jane Furse.

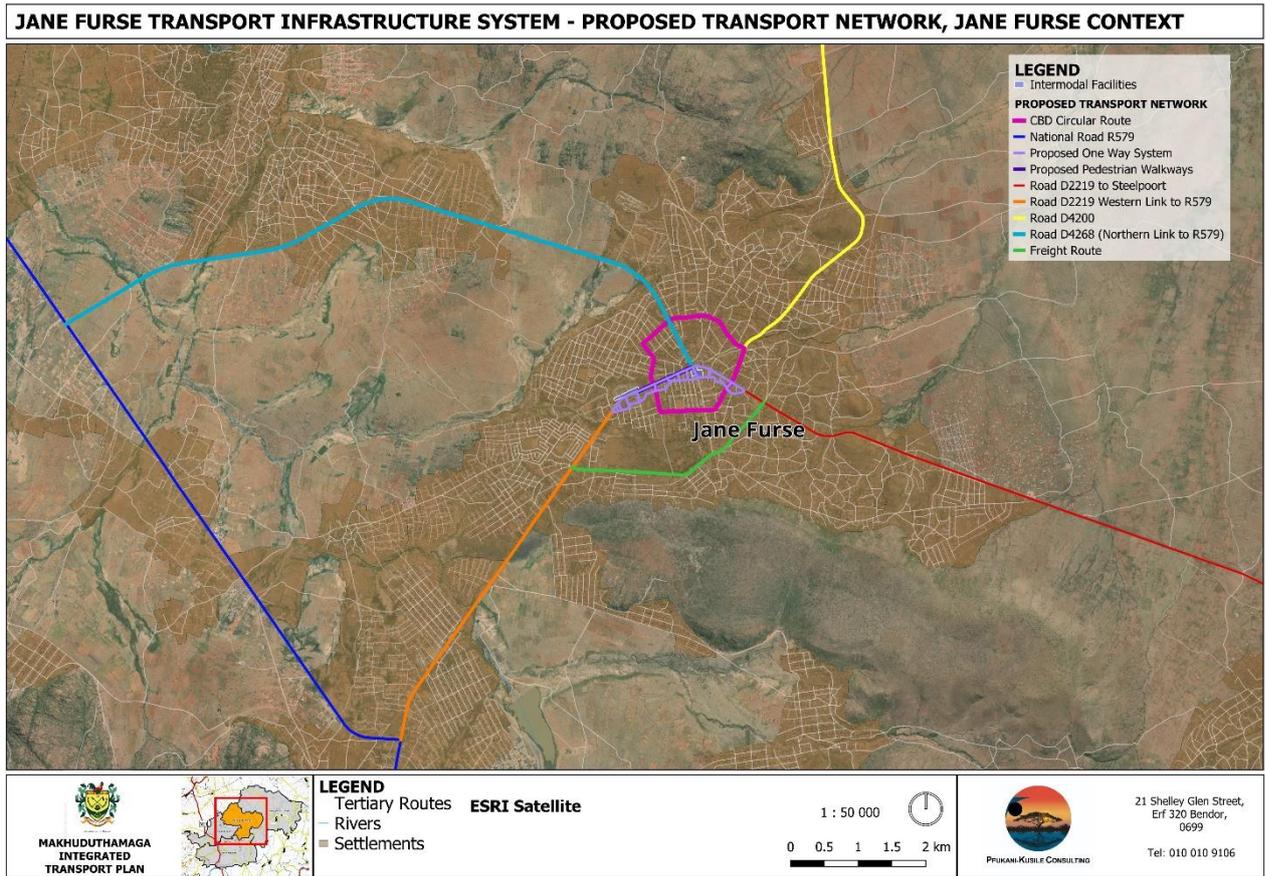
THE STEPS REQUIRED TO IMPLEMENT TRANSPORT INFRASTRUCTURE IN JANE FURSE	
Steps	Descriptions
1.	MLM and Role-Players should agree on measures to improve CBD, and it should become part of IDP.
2.	Prioritise Projects.
3.	Identify the possibility of Private and Public Partnerships and Grant Funding. (New Developments should provide required Facilities)
4.	Identify projects to form part of 3-Year Budget Term of IDP.
5.	Establish Project Committee with relevant role-players, for relevant Projects.
6.	Conduct detailed viability for Infrastructure Development Study for Jane Furse.
7.	Determine phases for Project to be implemented with time frames.
8.	Prepare Scope of Work for every Phase.
9.	Appoint Professional Teams for Concept Designs.
10.	Obtain Property where required.

11.	Conduct appropriate Environmental Studies.
12.	Consolidate and Zone the affected properties.
13.	Relevant Role-Players Sign Off.
14.	Conduct Detail Designs.
15.	Conduct Procurement process for construction.
16.	Commence construction.
17.	Implementation of maintenance and operations

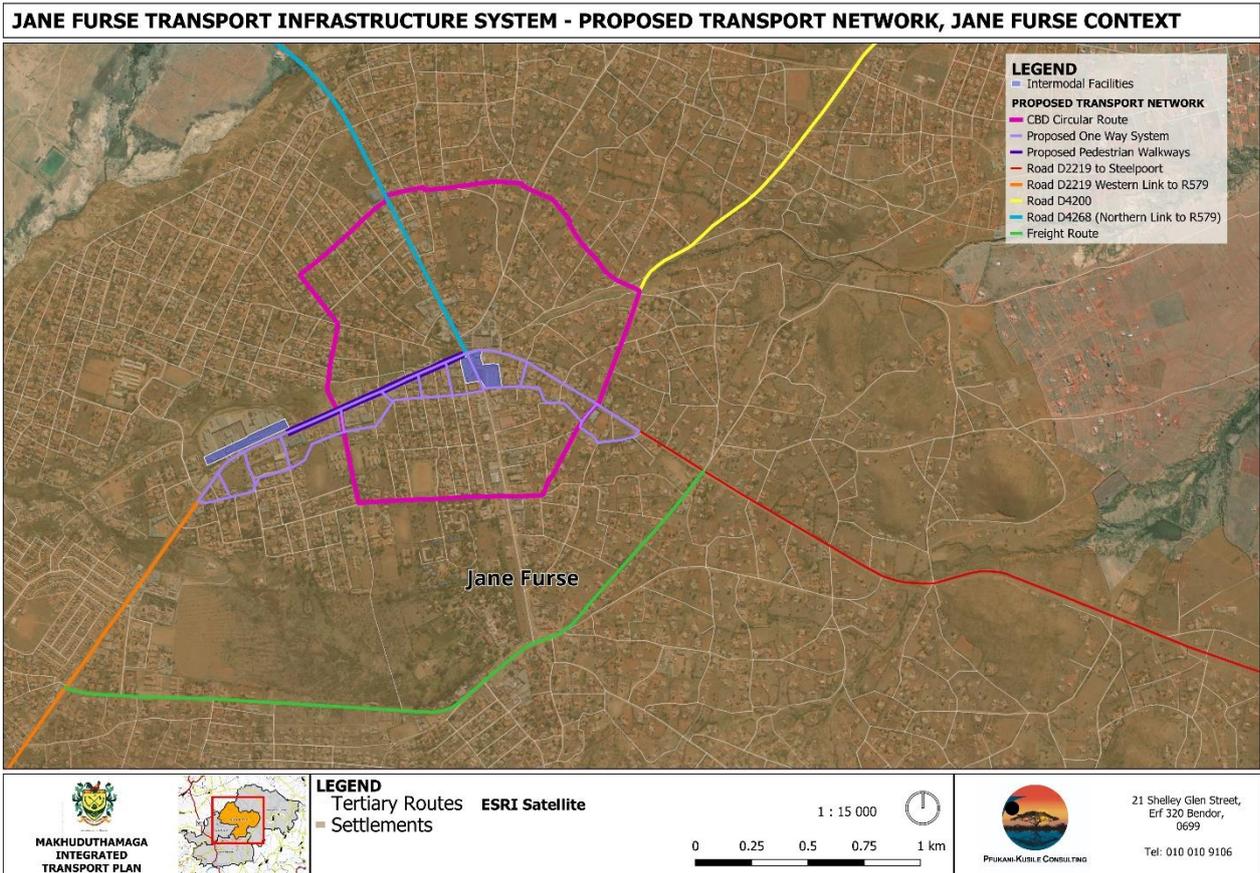
Table 31: the steps required to implement transport infrastructure in Jane Furse.



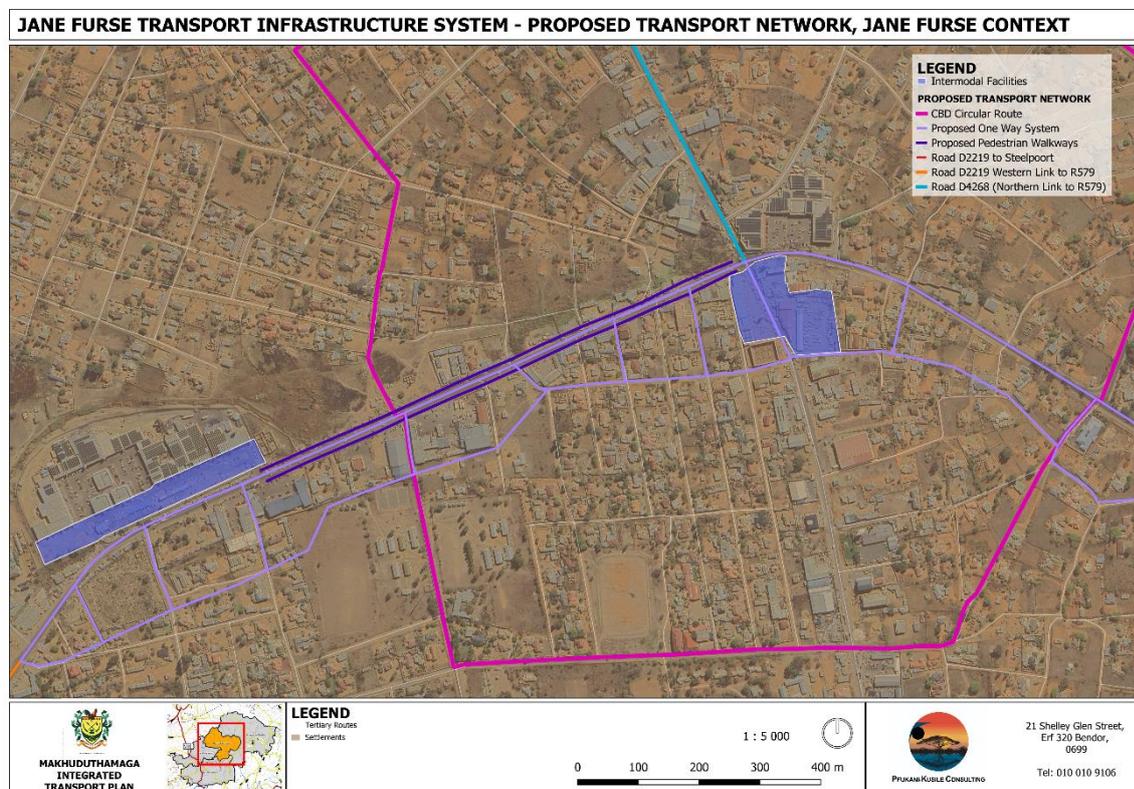
Map 51: Map showing existing and proposed roads within Makhuduthamaga Local Municipality I



Map 52: Map showing existing and proposed roads within Makhuduthamaga Local Municipality II



Map 53: Map showing existing and proposed roads within Makhuduthamaga Local Municipality III

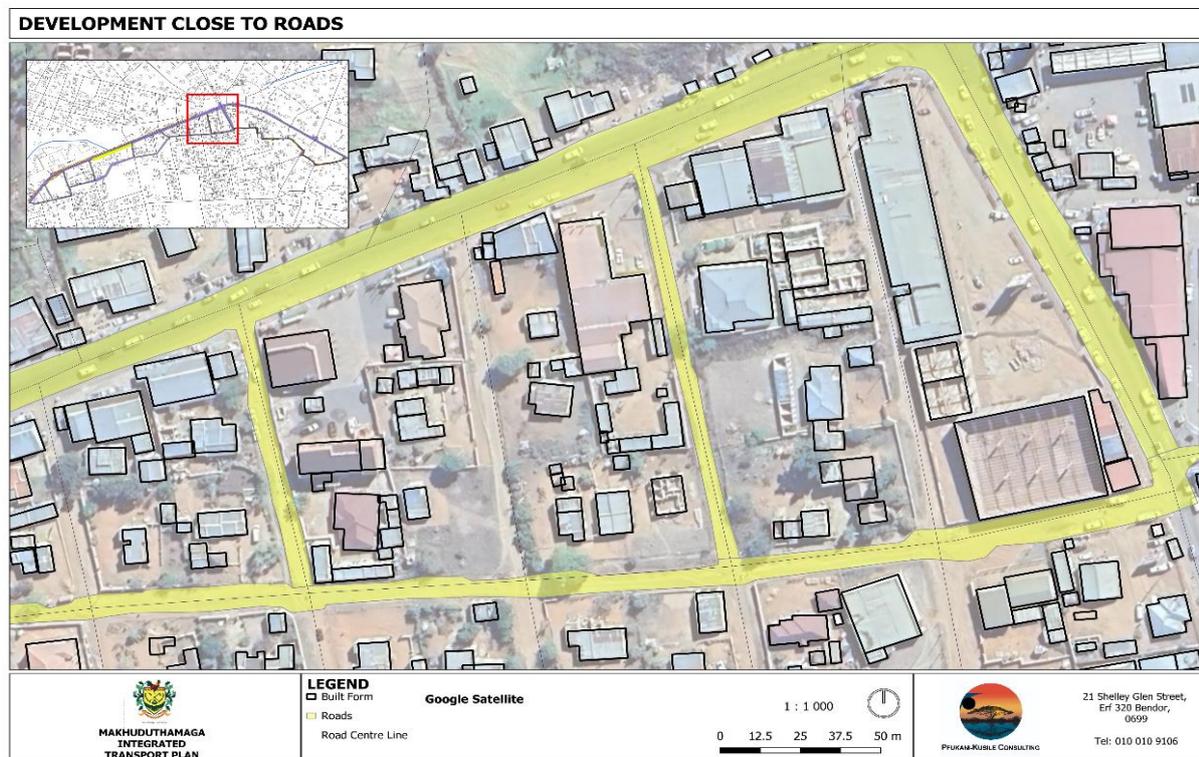


Map 54: Map showing existing and proposed roads within Makhuduthamaga Local Municipality IV

The mapping below shows how the built form (containing stores, street vending stalls, houses etc.) has been allowed to develop without consideration for roads and movements through the area.



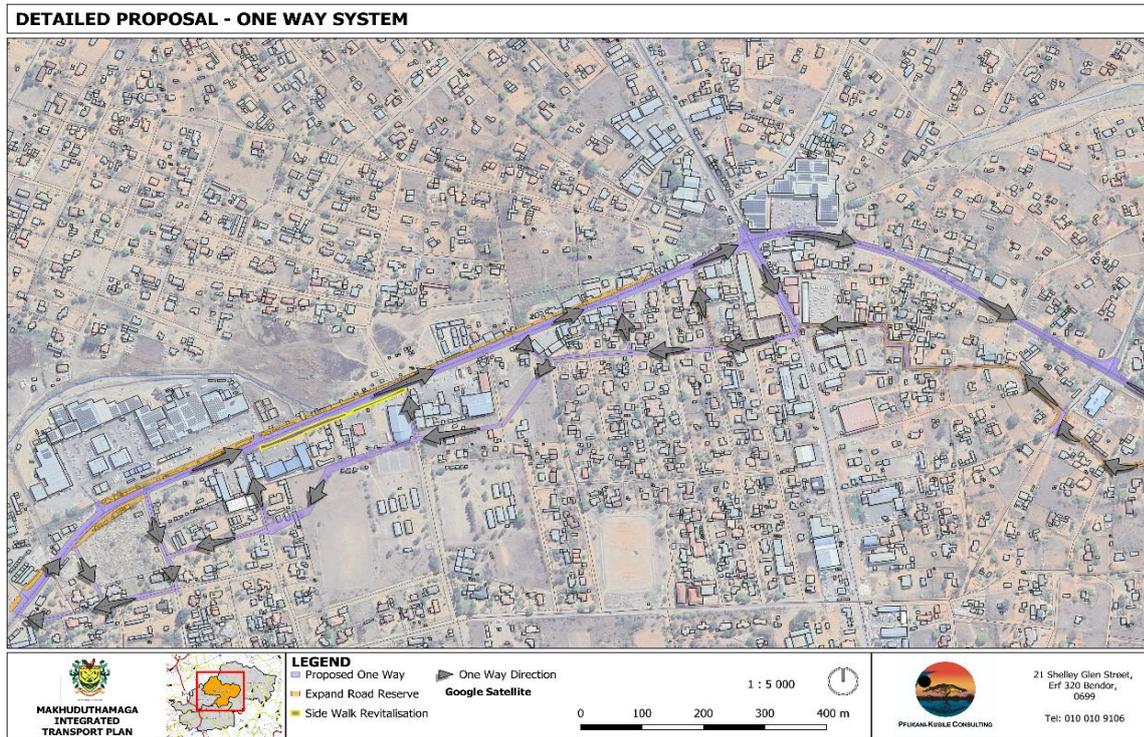
Map 55: Developments close to roads within Jane Furse



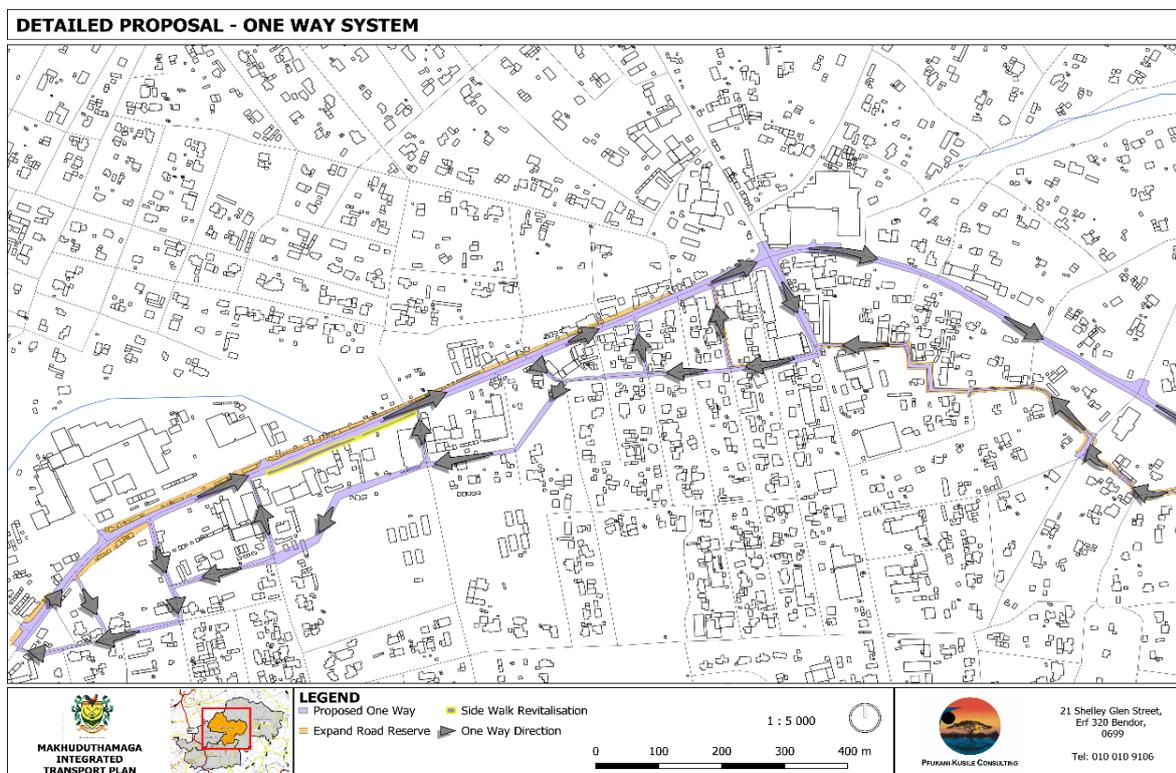
Map 56: Existing developments close to roads within Jane Furse

Most streets in the residential areas contain roads that allow for one car to pass instead of the conventional two lanes found in urban areas.

### 7.3.1. One Way System Through Jane Furse: Complete Town



Map 57: Map showing the proposed one way system through Jane Furse



Map 58: Sketched map showing the proposed one way system through Jane Furse

**Overall Design Guidelines:**

- The One-Way system will travel Northeast (top right) on the main road. Then the returning direction will be on the south (bottom) side of the main road.
- Transitions to go to either side of the One Way have been created using the existing parallel roads.
- The One-Way system contain 2 major components to assist with the alleviation of traffic through the CBD. The include:
  - Sidewalk Revitalization
  - Expansion of Road Reserve

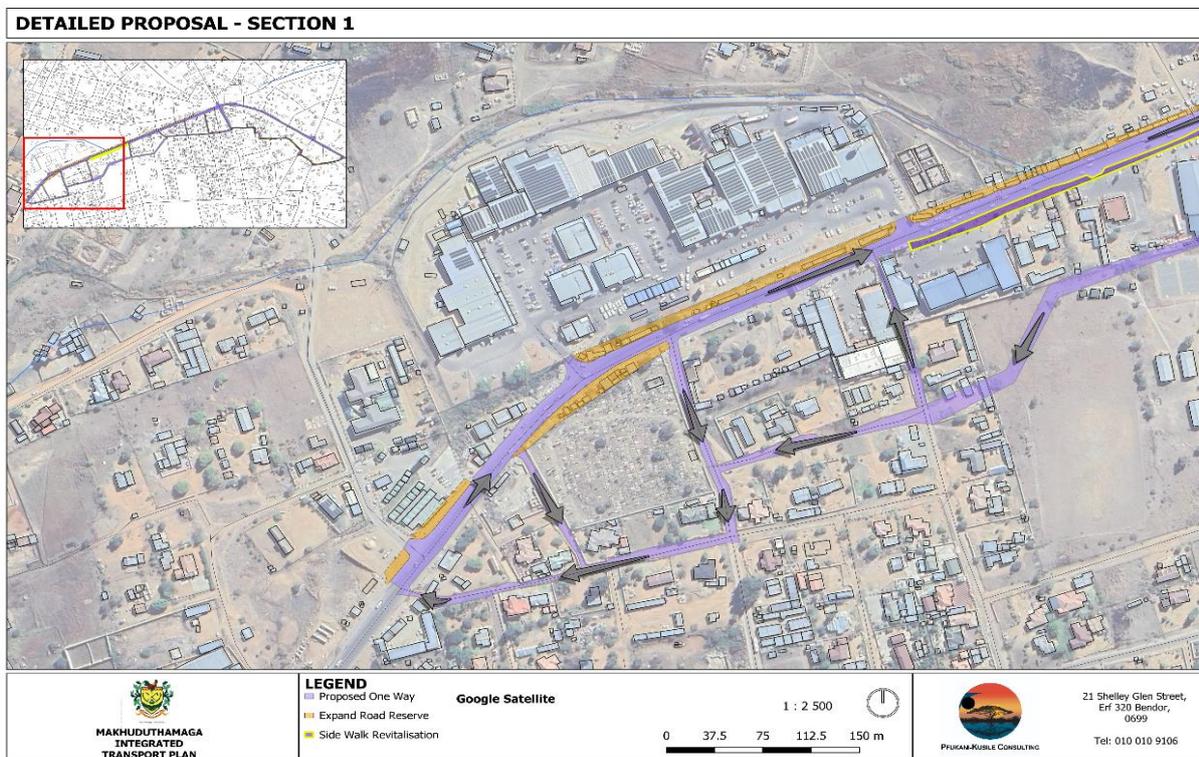
**Sidewalk Revitalization**

- Pedestrians in the CBD need to be appropriately accommodated. Sidewalks are currently being used for street vending, and passenger need occasionally walk in the road.
- These vending activities need to either be pushed back away from the road (setback) to allow for more pedestrian space; or removed from their position into a designated space.

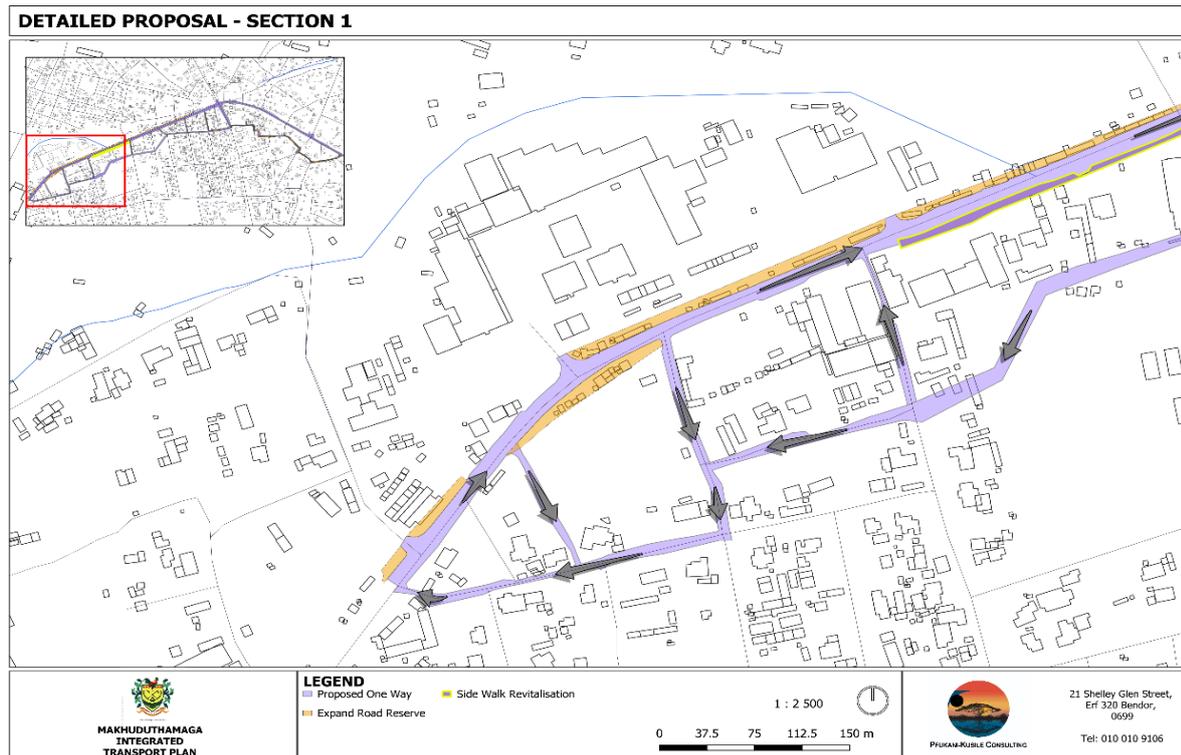
**Expansion Of Road Reserve**

- The proposal of the one-way system will need certain portions of the CBD to be reconfigured. This is so that the traffic volumes can be catered for.
- The extended road reserve will either allow for more vehicle lanes to be built, or more sidewalk space provided for pedestrians.
- The expansion of road reserve will be a contentious exercise as some properties and fencing may need to be adjusted or removed.

**7.3.2. Section 1 of Jane Furse CBD**



Map 59: Map showing section 1 of Jane Furse CBD



Map 60: Sketched map showing section 1 of Jane Furse CBD

### Design Guidelines:

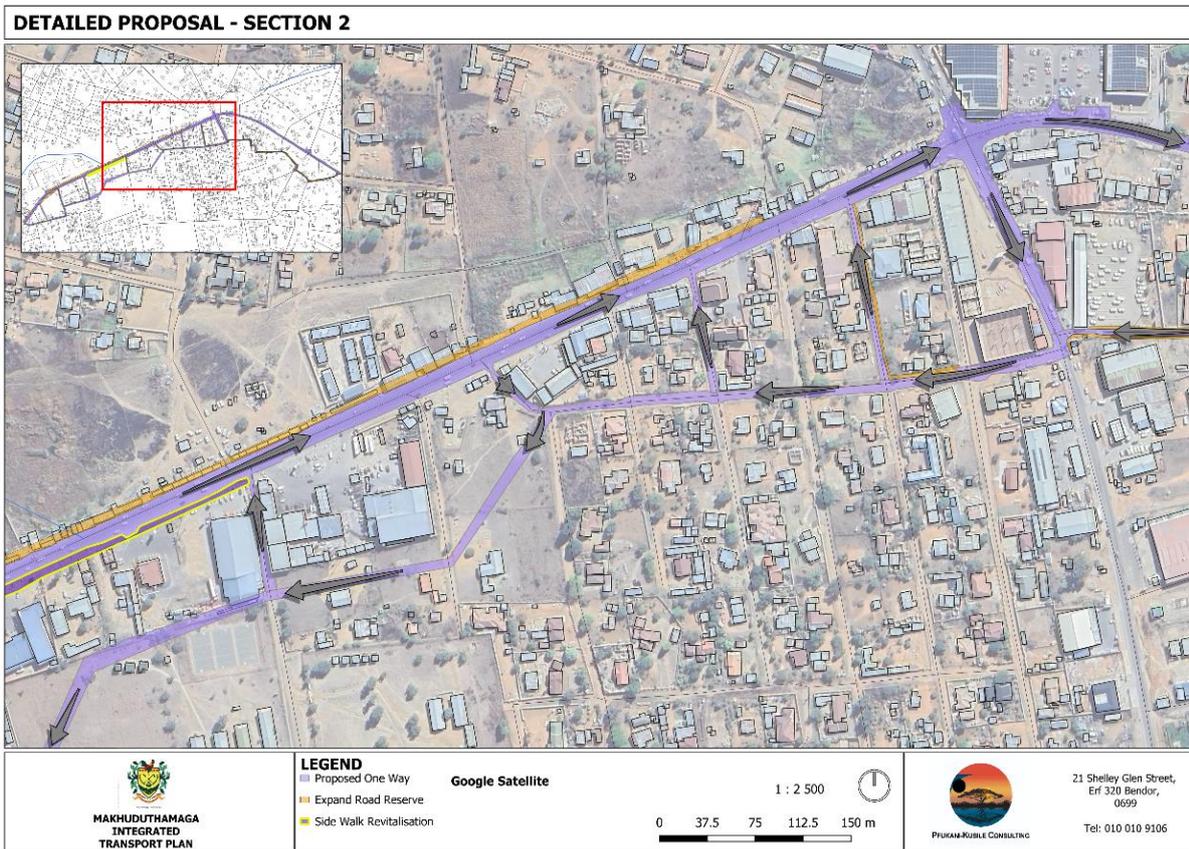
#### Sidewalk Revitalization

- The Northeastern part of Section 1 will need sidewalks (NMT) to be expanded for the volume of pedestrian.
- The sidewalks can also be positions with street furniture such as benches.

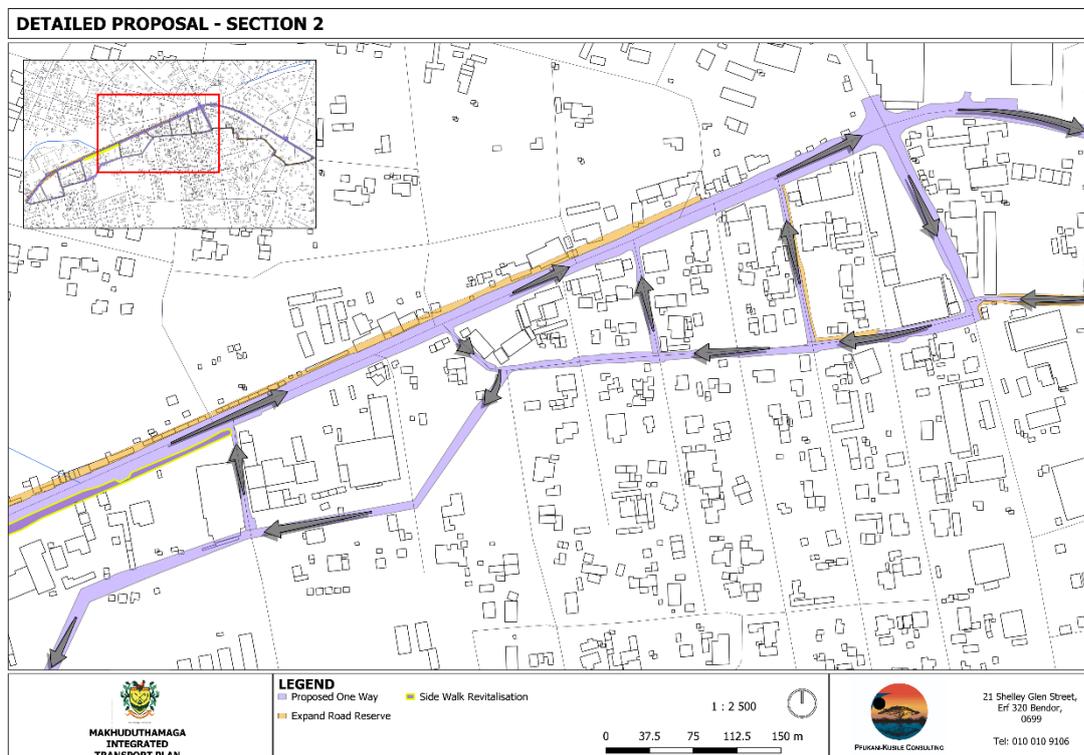
#### Expansion of Road Reserve

- The extended road reserve will allow for more sidewalk spaces to be provided for pedestrians.
- This will mean the street vending properties to the North (top) of the main road, need to be adjusted/relocated/ removed.

### **7.3.3. Section 2 of CBD**



Map 61: Map showing section 2 of Jane Furse CBD



Map 62: Sketched map showing section 2 of Jane Furse CBD

**Design Guidelines:**

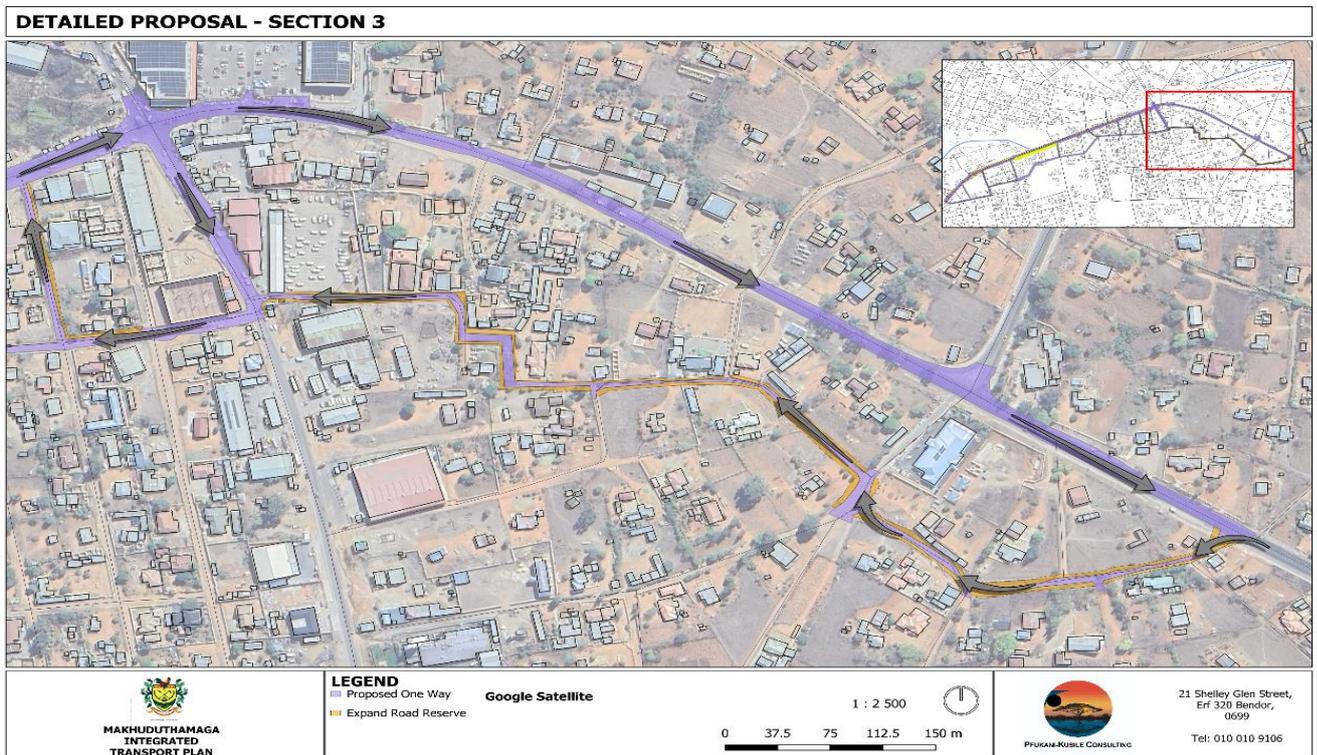
**Sidewalk Revitalization**

- The Southwestern part of Section 2 will need sidewalks to be expanded for the volume of pedestrian.
- The sidewalks should also be provided with street furniture such as benches.

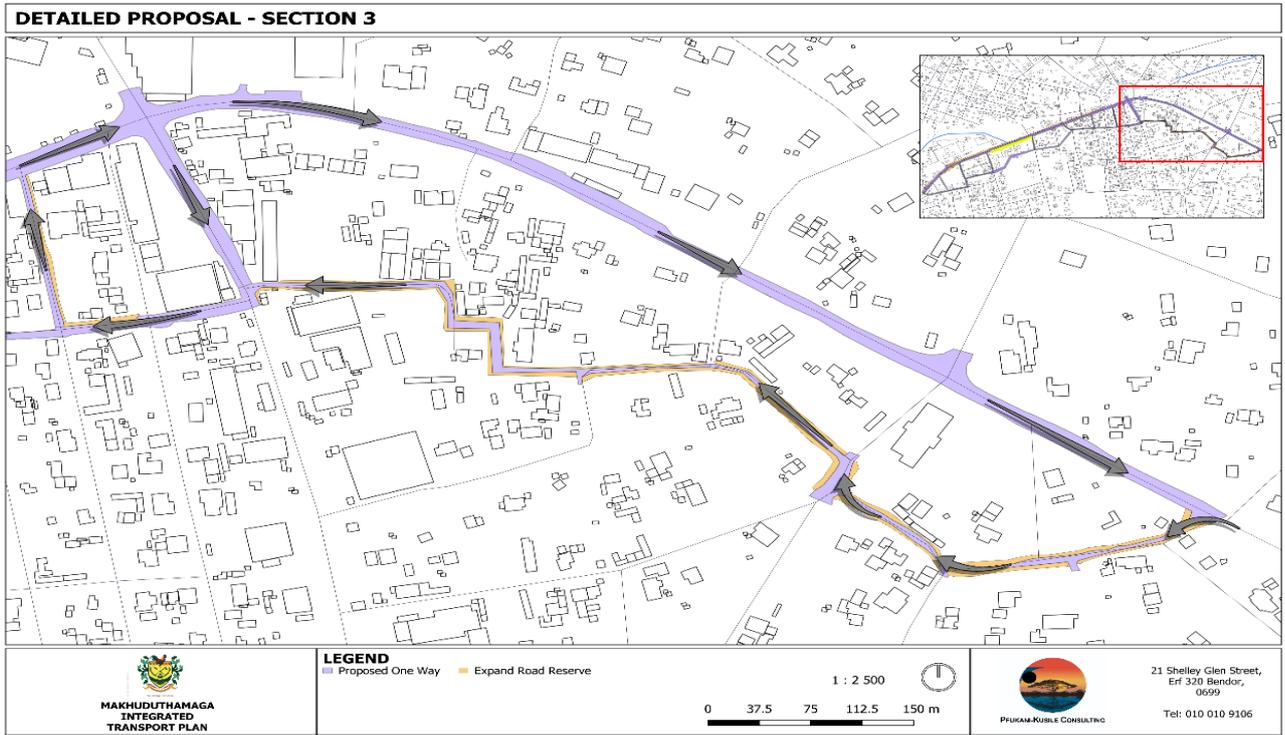
**EXPANSION OF ROAD RESERVE**

- The extended road reserve will allow for more sidewalk space to be provided for pedestrians.
- This will mean the street vending properties to the North (top) of the main road, need to be adjusted or removed.

**7.3.4. Section 3 of the CBD**



Map 63: Map showing section 3 of Jane Furse CBD



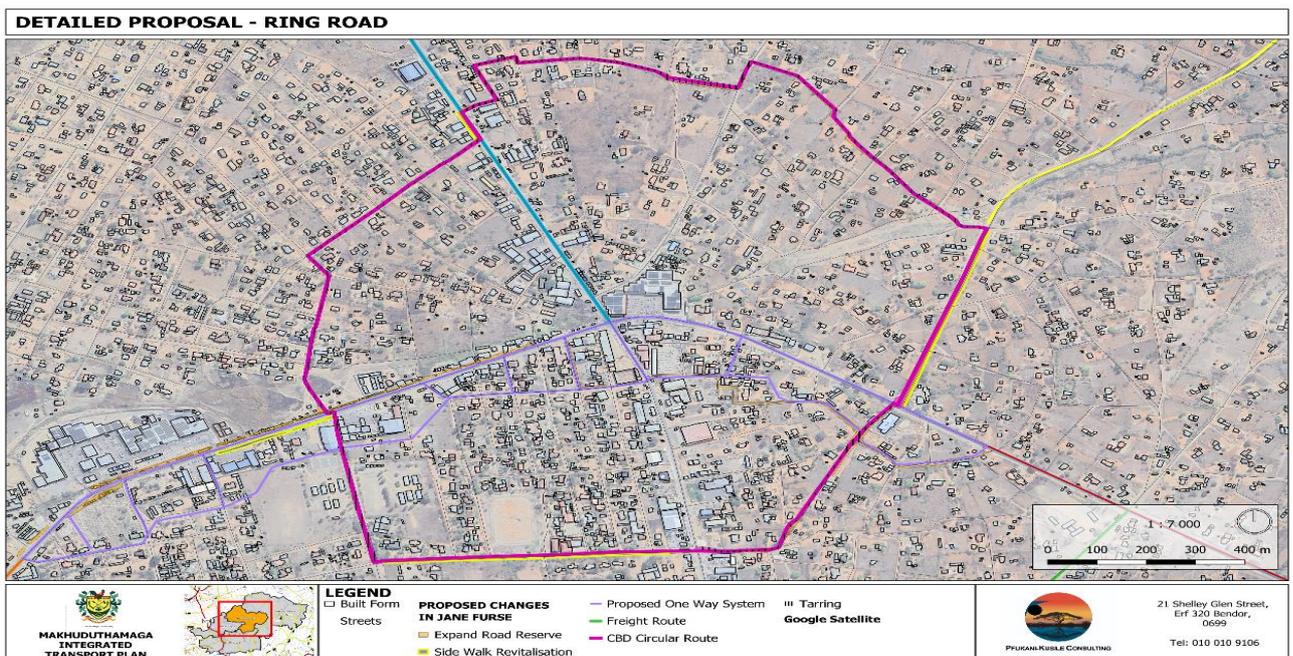
Map 64: Sketched map showing section 3 of Jane Furse CBD

**Design Guidelines:**

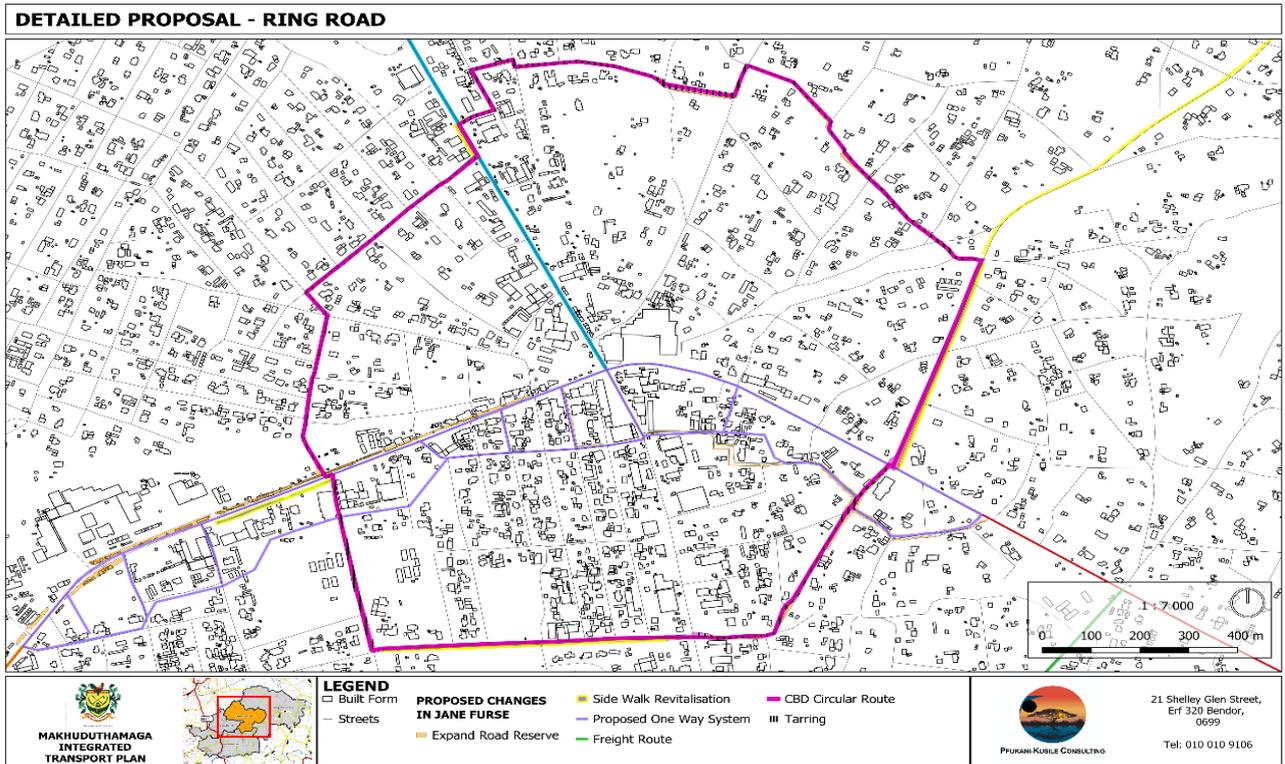
**Expansion of Road Reserve**

- o The expansion of road reserve will be a contentious exercise as some properties and fencing may need to be adjusted or removed.

**7.3.5. Ring Road System Through Jane Furse: Complete Town**



Map 65: Map showing the proposed Ring Road in Jane Furse

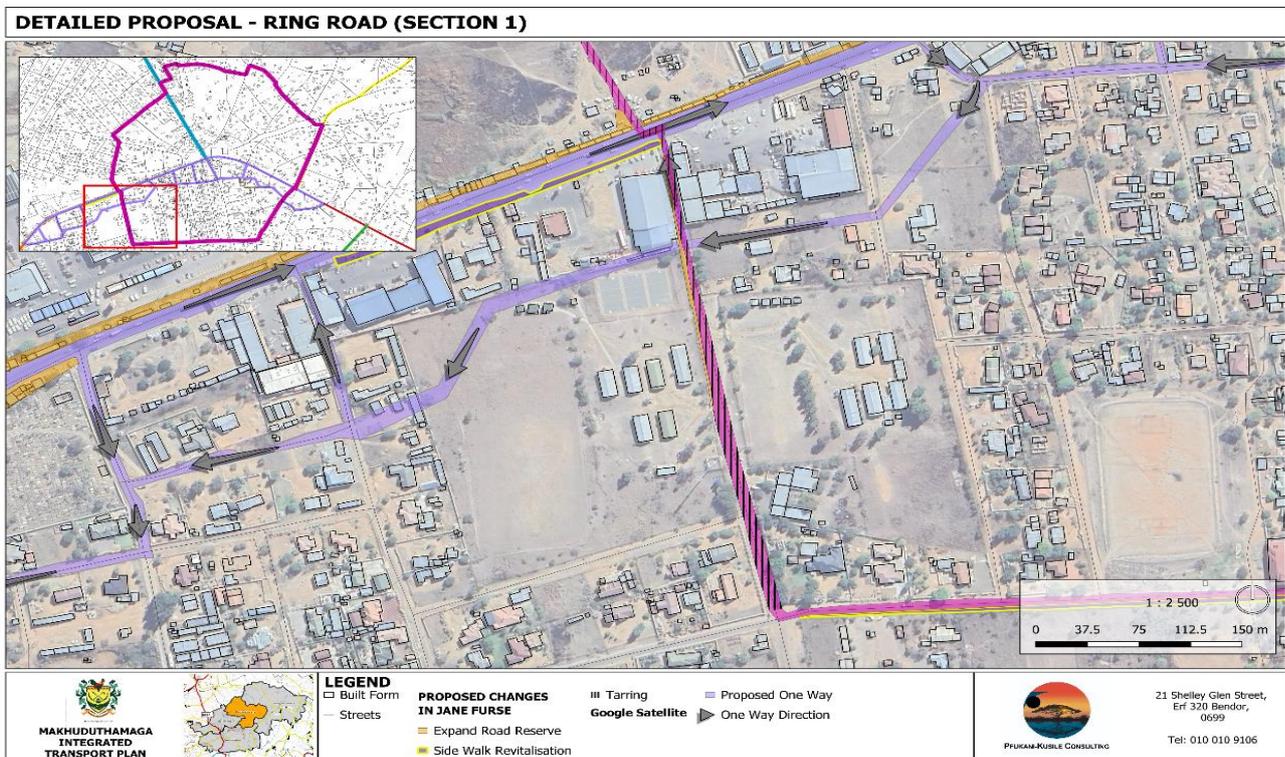


Map 66: Sketched map showing the proposed Ring Road in Jane Furse

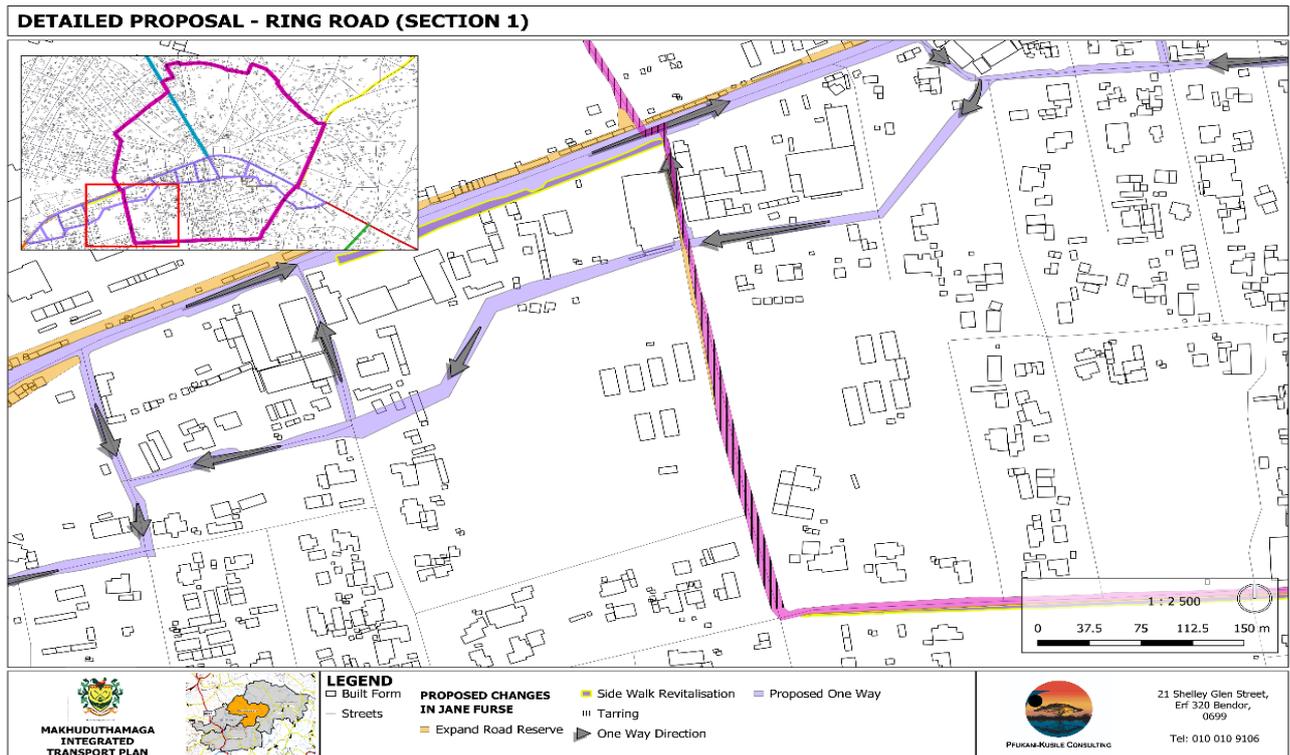
**Overall Design Guidelines:**

- The intention with the ring road is to offer an alternative route for those who wish to bypass entering the city centre.

**7.3.6. Section 1 of the CBD**



Map 67: Map showing section 1 of the Ring Road



Map 68: Sketched map showing section 1 of the Ring Road

### Design Guidelines:

#### Tarring of Road Network

- The proposed ring road should require budget for upgrades.

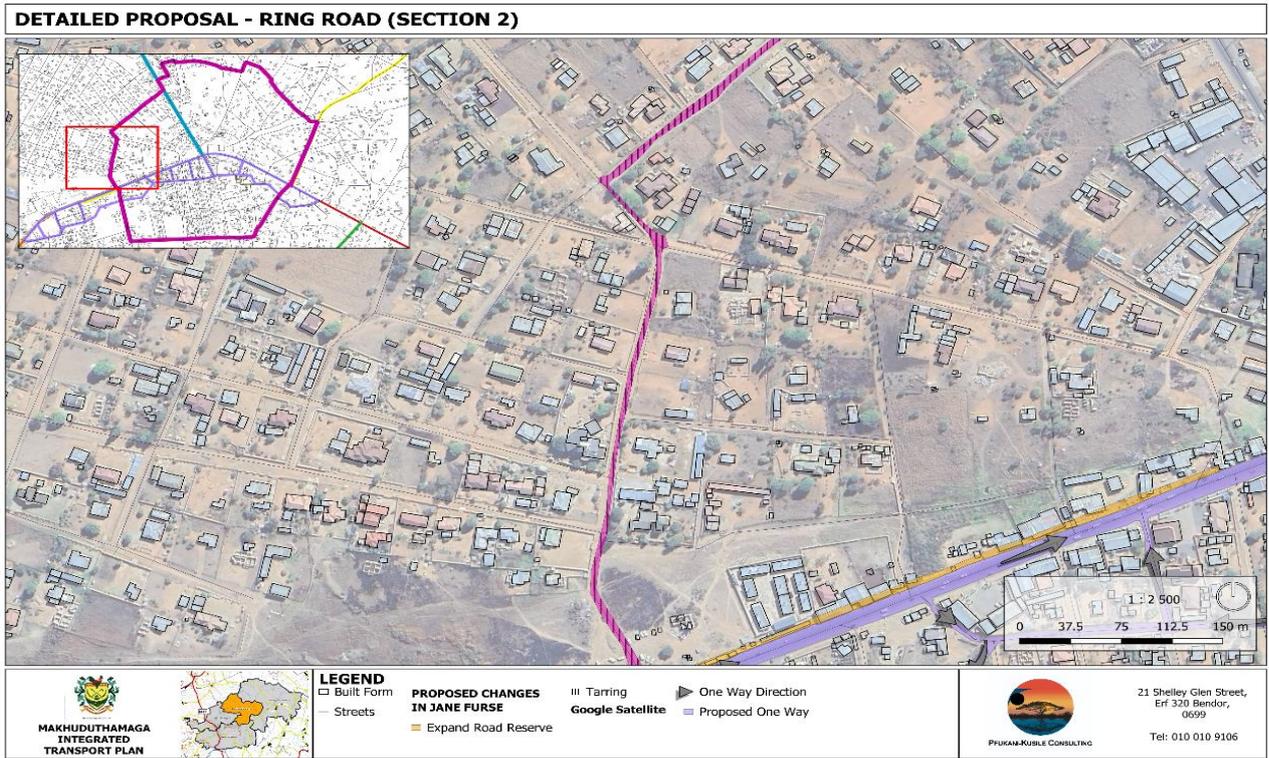
#### Expansion of Road Reserve

- The road network needs an expansion of the road reserve to cater for more vehicular traffic. Currently, the route can only accommodate 1.5 cars.
- The road expansion will require the demolition and relocating (setting back) of a few properties and fences.

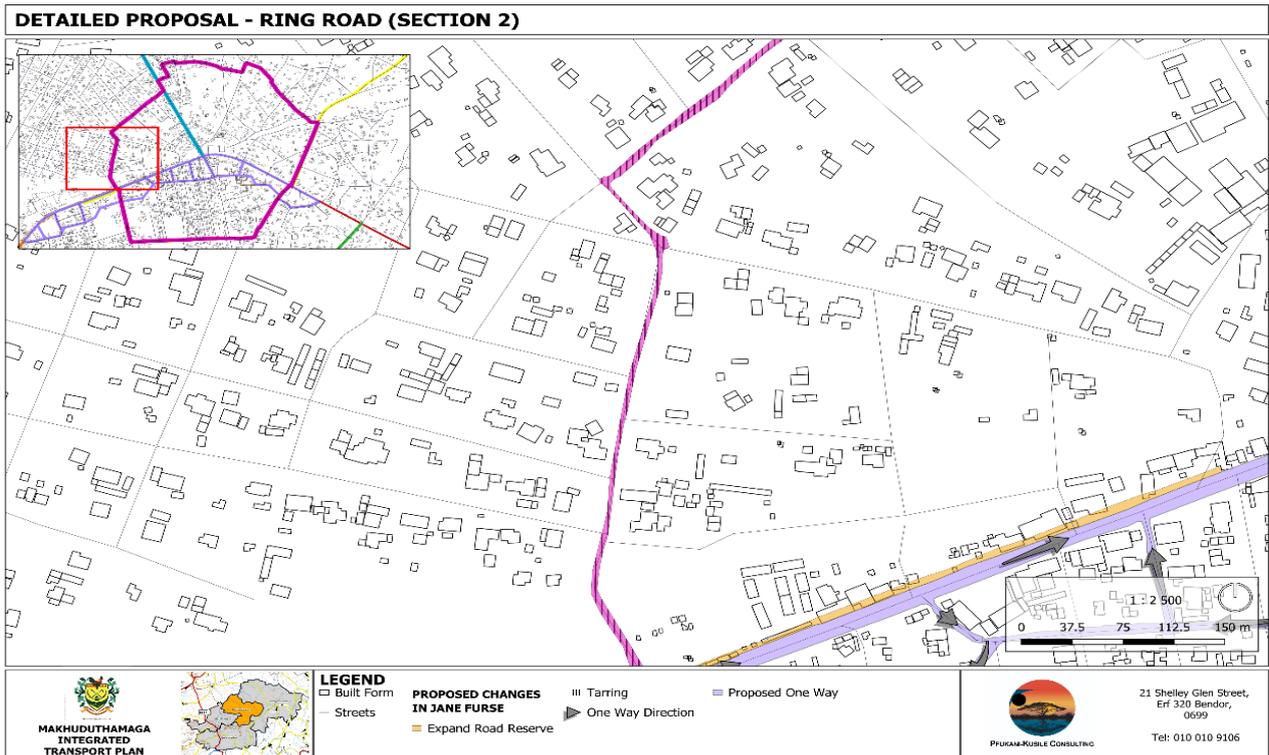
#### Sidewalk Revitalization

- The south of the road network will incorporate the upliftment of the sidewalk to the south of the ring road.

### 7.3.7. Section 2 of the CBD



Map 69: Map showing section 2 of the Ring Road



Map 70: Sketched map showing section 2 of the Ring Road

**Design Guidelines:**

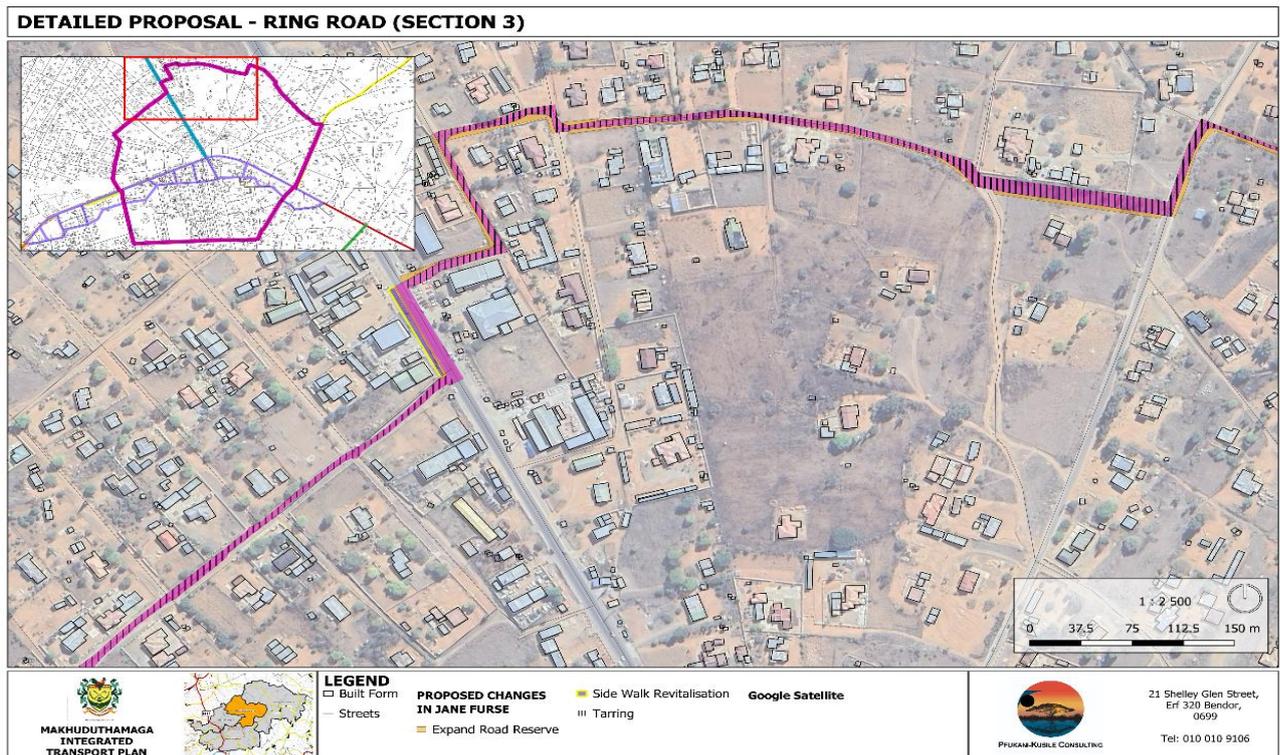
**Tarring of Road Network**

- This section of the ring road proposal will need tarring work to be done on the road.

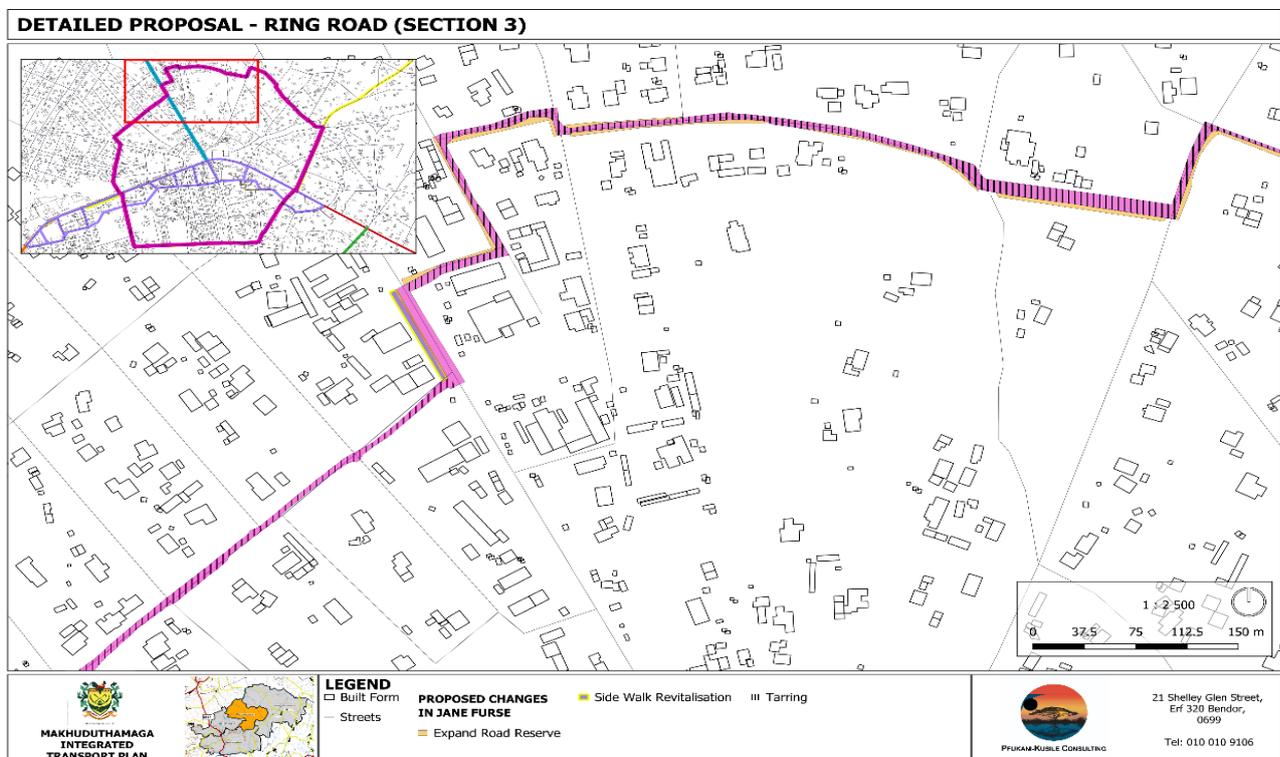
**Expansion of Road Reserve**

- The road network needs an expansion of the road reserve to cater for more vehicular traffic. As it stands, the route can only accommodate 1.5 cars.
- The road expansion will require the demolition and setting back of a few properties and fences.

7.3.8. Section 3 of the CDB



Map 71: Map showing section 3 of the Ring Road



Map 72: Sketched map showing section 3 of the Ring Road

**Design Guidelines:**

**Tarring of Road Network**

- This section of the ring road proposal should be upgraded.

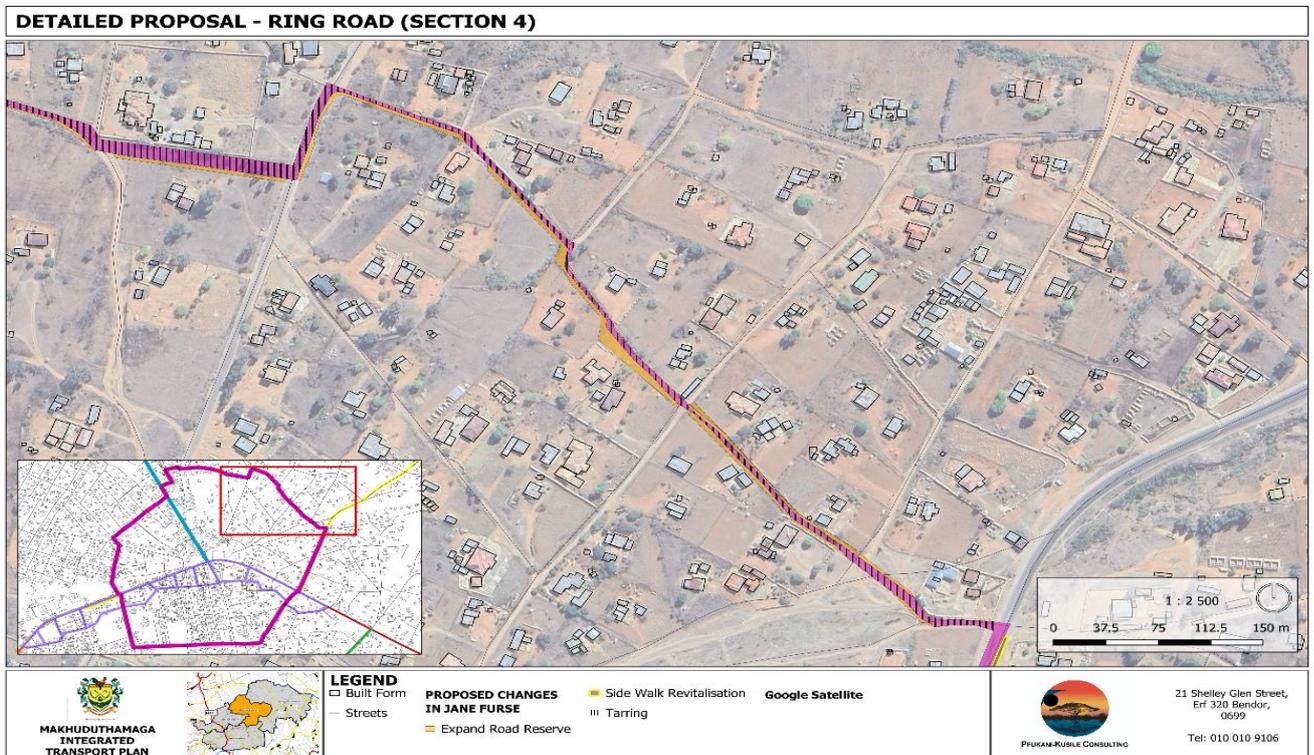
**Expansion of Road Reserve**

- The road network requires an expansion of the road reserve to cater for more vehicular traffic. As it stands, the route can only accommodate 1.5 cars.
- The road expansion will require the demolition and setting back of a few properties and fences.

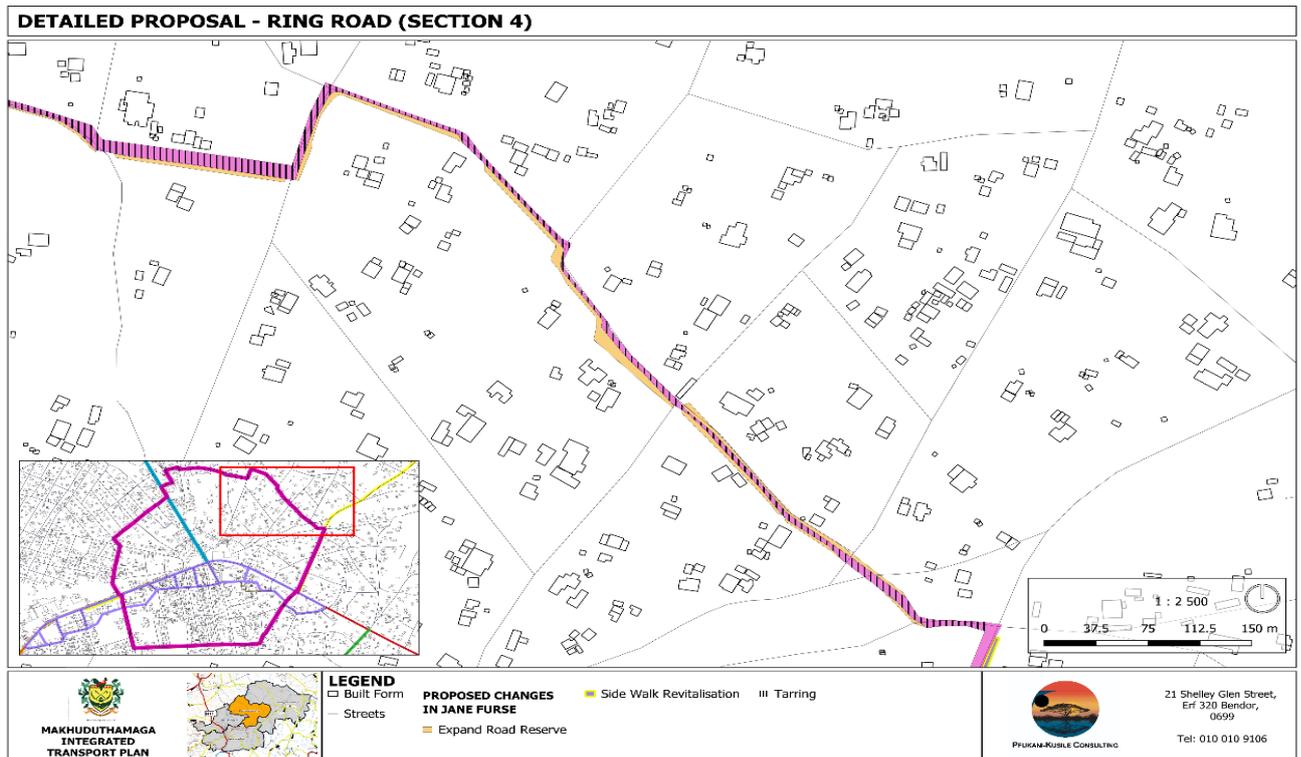
**Sidewalk Revitalization**

- The portion of the proposal containing an existing tarred road will incorporate the upliftment of the sidewalk to the south of the ring road.

**7.3.9. Section 4 of the CDB**



Map 73: Map showing section 4 of the Ring Road



Map 74: Sketched map showing section 4 of the Ring Road

## Design Guidelines:

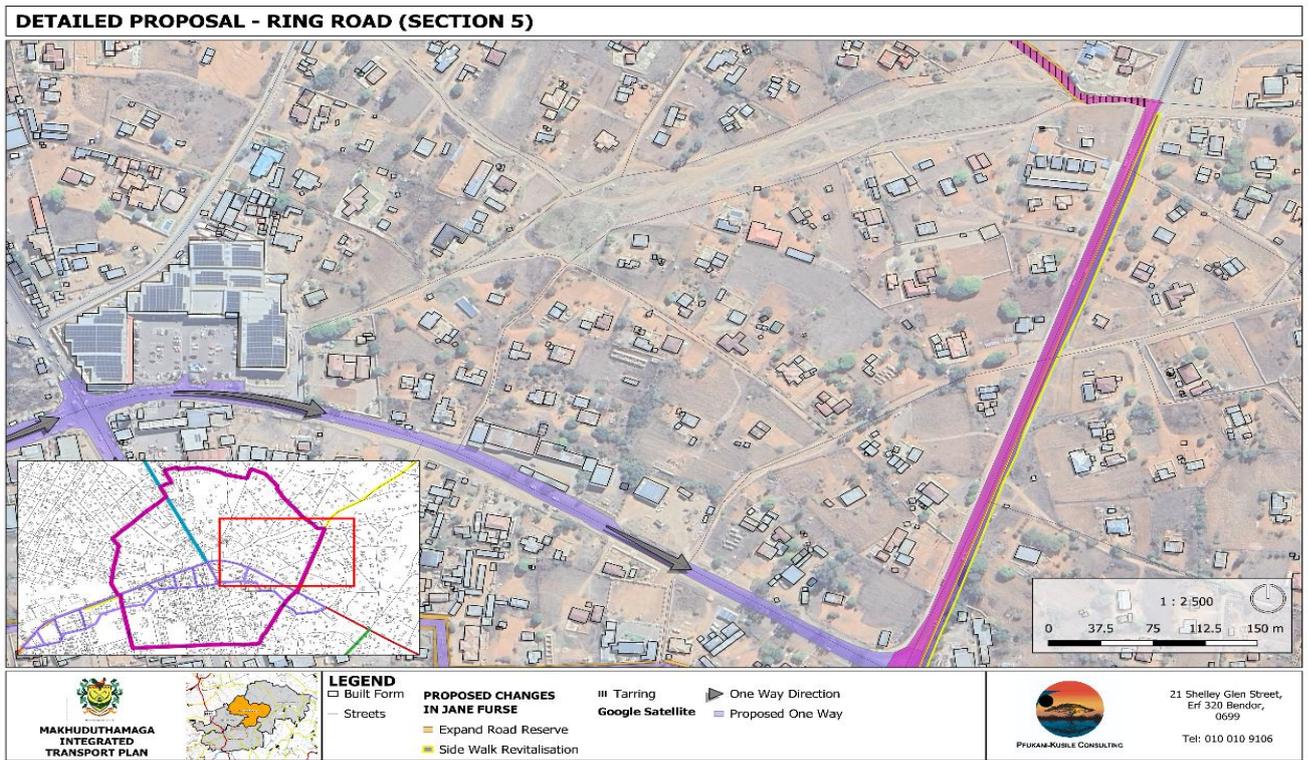
### Tarring of Road Network

- This section of the ring road proposal will need tarring work to be done on the road.

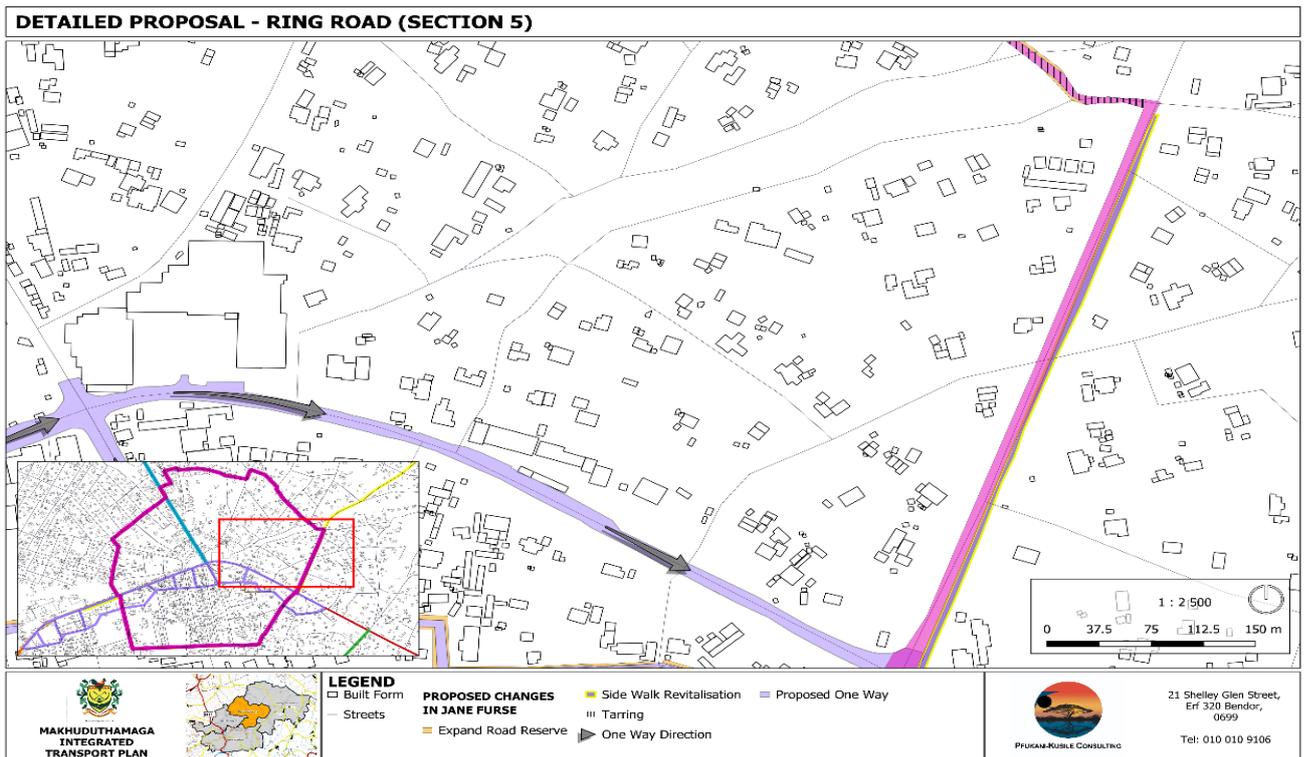
### Expansion of Road Reserve

- The road network needs an expansion of the road reserve to cater for more vehicular traffic.
- The road expansion will require the demolition and setting back of a few properties and fences.

### **7.3.10. Section 5 of the CDB**



Map 75: Map showing section 5 of the Ring Road



Map 76: Sketched map showing section 5 of the Ring Road

**Design Guidelines:**

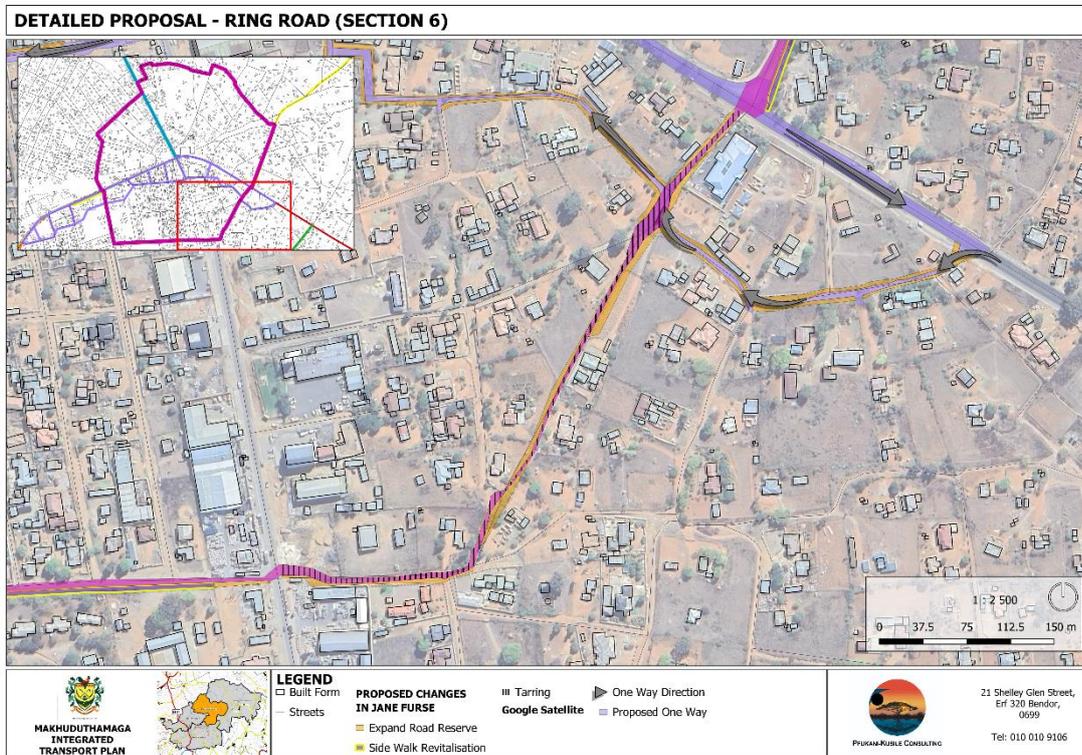
**Tarring of Road Network**

- This section of the ring road proposal will need tarring work to be done on the road.

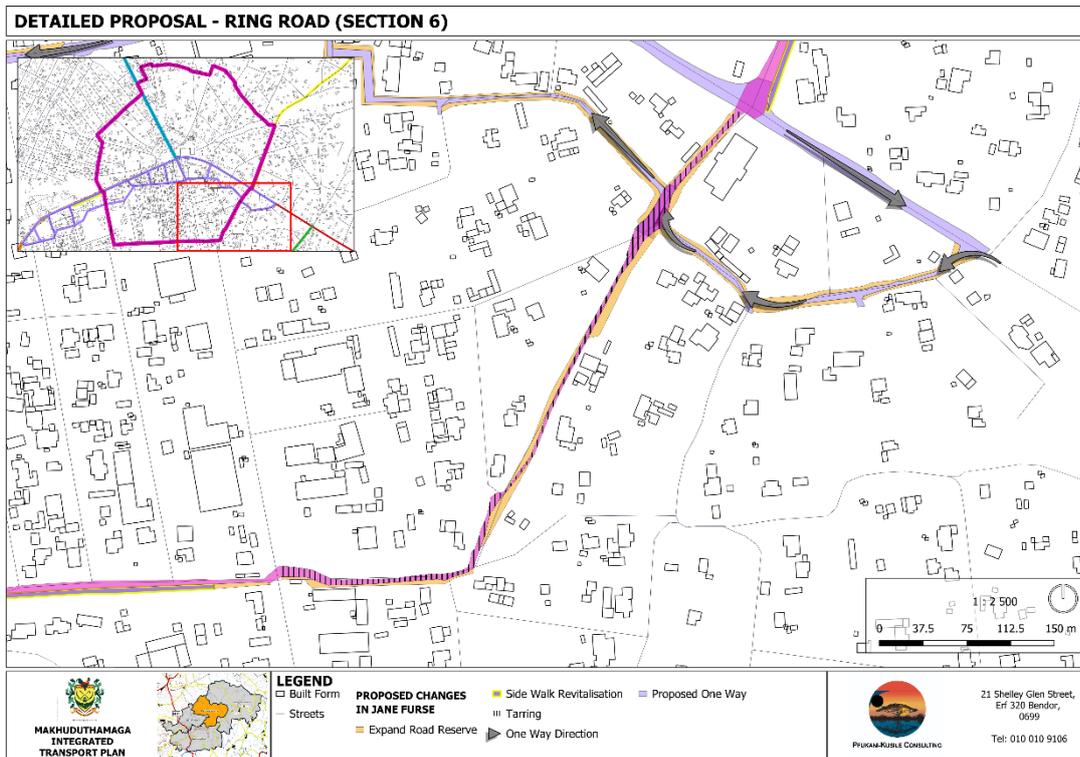
**Sidewalk Revitalization**

- The portion of the proposal containing an existing tarred road will incorporate the upliftment of the sidewalk to the south of the ring road.

**7.3.11. Section 6 of the CDB**



Map 77: Map showing section 6 of the Ring Road



Map 78: Sketched map showing section 6 of the Ring Road

### Design Guidelines:

#### Tarring of Road Network

- This section of the ring road proposal will need tarring work to be done on the road.

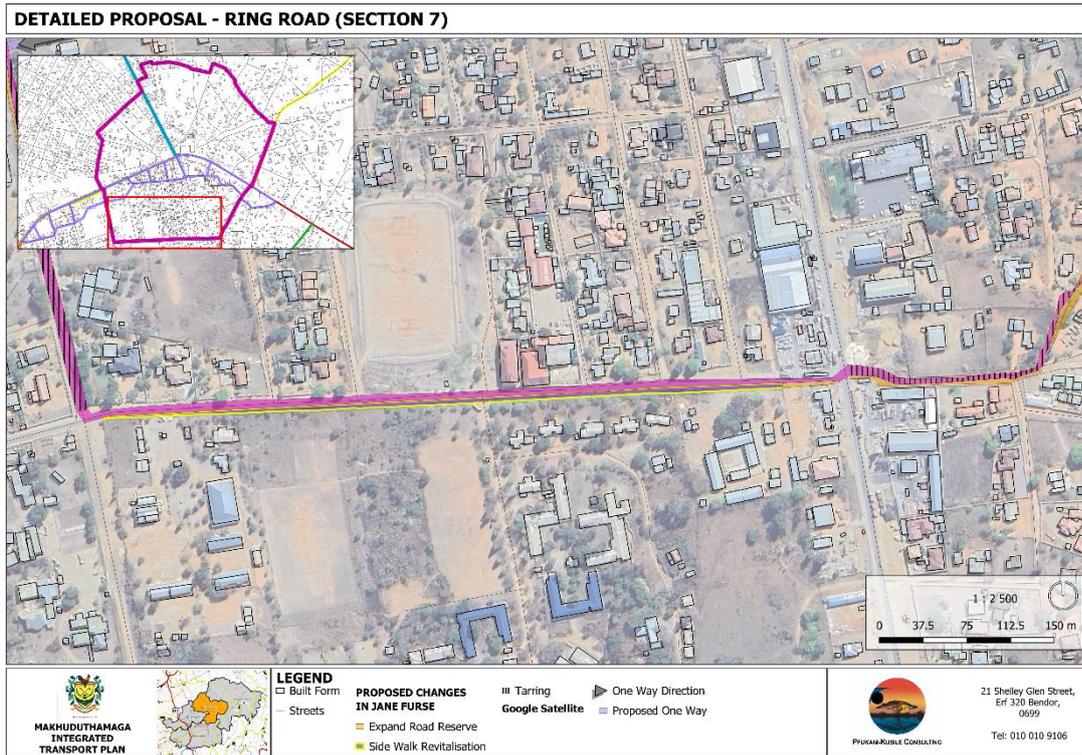
#### Expansion of Road Reserve

- The road network requires an expansion of the road reserve to cater for more vehicular traffic.
- The road expansion will require the demolition and setting back of a few properties and fences.

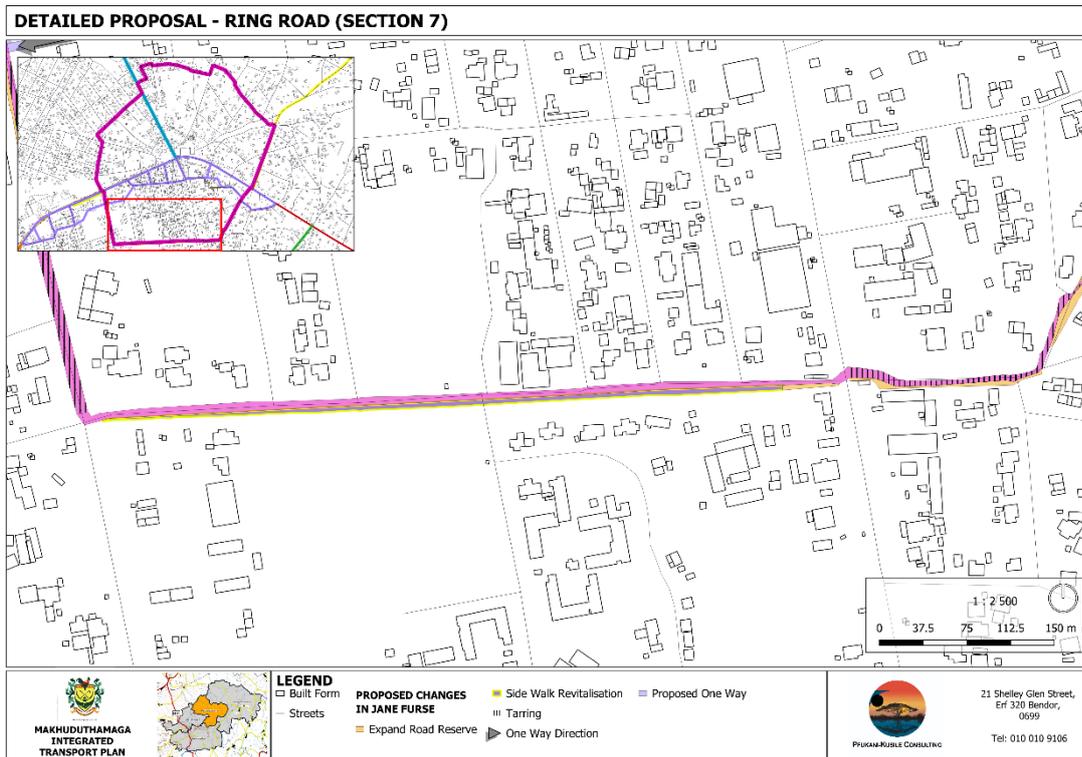
#### Sidewalk Revitalization

- The portion of the proposal containing an existing tarred road will incorporate the upliftment of the sidewalk to the south of the ring road.

7.3.12. Section 7 of the CDB



Map 79: Map showing section 7 of the Ring Road



Map 80: Sketched map showing section 7 of the Ring Road

## Design Guidelines:

### Tarring of Road Network

- This section of the ring road proposal will need tarring work to be done on the road.

### Expansion of Road Reserve

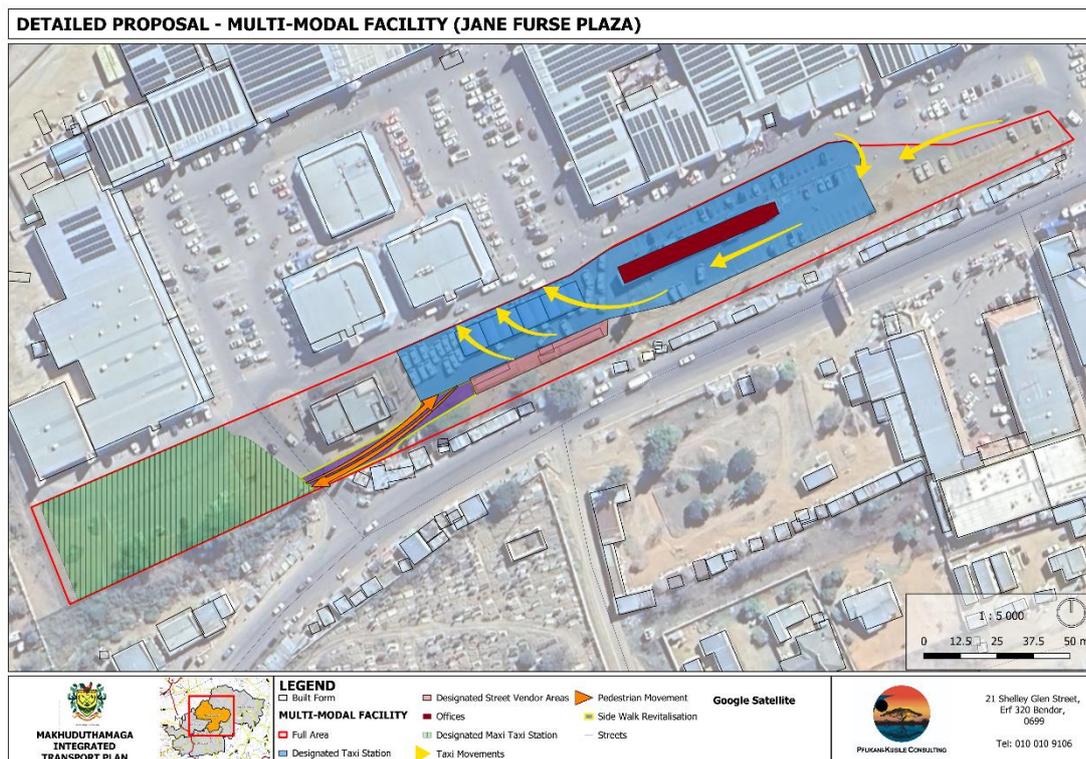
- The road network needs an expansion of the road reserve to cater for more vehicular traffic.
- The road expansion will require the demolition and setting back of a few properties and fences.

### Sidewalk Revitalization

- The portion of the proposal containing an existing tarred road will incorporate the upliftment of the sidewalk to the south of the ring road.

## 7.4. Multi-Modal Facility (Jane Furse Plaza)

### 7.4.1. Jane Furse Plaza



Map 81: Map showing the multi-modal facility proposal in Jane Furse Plaza

## Overall Design Guidelines:

### Expansion of the Existing Taxi Facility

- The taxi rank in the plaza is very busy. Taxis often wait in the main arterial of the mall parking to wait for their turn to collect passengers.

- It is proposed that the taxi facility be expanded towards the Northeast. The taxis will then follow a one-way system as they have been doing. However, there will be more space to accommodate them.
- The new area proposed on the East is at a higher elevation compared to the taxi rank. Hence there will need to be revisions of the space done to accommodate for this.

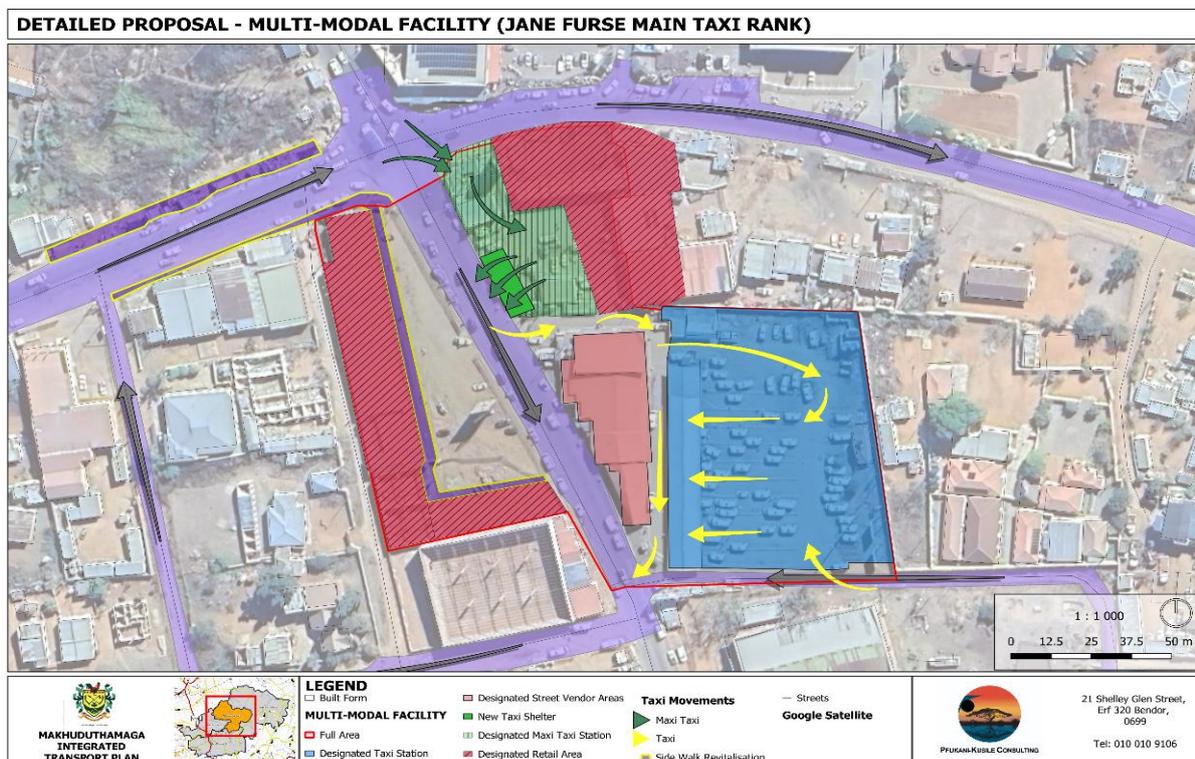
### Creation of Maxi Taxi Facility

- Maxi Taxi's in the area, do not have a designated area to stop. They usually wait along the main road.
- It is suggested that they be accommodated in the parking space to the West of the mall.
- The parking space is usually unused; hence it can be uplifted to promote activity in the area.

### Sidewalk Revitalization

- A pedestrian link is proposed between the two taxi facilities with benches and street furniture to allow for a more seamless and active connection between the two facilities.

## 7.4.2. Jane Furse Main Taxi Rank



Map 82: Map showing the multi-modal facility proposal in Jane Furse Main Taxi Rank

### Overall Design Guidelines:

#### Creation of Maxi Taxi Facility

- Maxi Taxi's in the area, do not have a designated area to stop. They usually wait along the main road.
- It is suggested that they be accommodated in the parking space to the Northern section of the Multi - Modal Facility.

- This will entail the removal of the existing buildings and movement of businesses to the retail area on either the west, or the east on the other side of the road.
- This is so that they are still close to the mall where most of their customers come from, but also away from hindering traffic movement through the area.
- The facility will be partitioned from the existing Retail Facility (Petrol Station) on the east.

#### **Sidewalk Revitalization**

- Around the Multi-Modal facility, pedestrians must be accommodated and given priority to move through the space safely and comfortably.
- There must be the inclusion of street furniture such as benches.

#### **Designated Retail Area**

- These designated areas will be consolidated with the retail facilities that are removed for the Maxi Taxi facility.

#### **Designated Street Vendors Area**

- There is an existing building near the taxi rank facility that cater for street vendors.
- This will be kept, to continue accommodating the street traders.

### **7.5. PUBLIC TRANSPORT FACILITY RELATED TO SECONDARY DEVELOPMENT NODES AND LOCAL SERVICE NODES**

The following secondary development nodes and local service points were identified to develop public transport infrastructure:

- Secondary Development Node: Glen Cowie.
- Secondary Development and Agricultural Node: Apel Cross / Ga-Masemola.
- Local Service Node: Nebo / Phokoane.
- Local Service Node: Vleischboom.
- Local Service Node: Moratiwa.
- Local Service Node: Magnet Heights.
- Local Service Node: Schoonoord.

The information below provides a summary of the status and needs for the public transport facilities related to the identified growth points and local service nodes, and contains the following details:

- General Information.
- Elements of currently Transit Orientated Development (TOD), incorporated.
- Typical Public Transport Facilities.
- Destinations served.

- Type of Public Transport Modes.
- Type of NMT provided.
- Infrastructure required as part of Facility.
- Ancillary Facilities.
- Operation and Maintenance.

## **7.6. Public Transport Facilities**

The planning for Public Transport facilities includes the provision of public transport related infrastructure that is required such as commuter shelters, water and sanitation, taxi ranks, proper holding facilities. During public participation engagement meetings, areas of focus regarding public transport facilities will be finalised.

Categorisation should be made in terms of formal, semi-formal and informal. The following are critical:

- Promote safety in terms of providing fences and lights; and
- Provision of seats or benches to accommodate people with special needs.

The semi-formal can be upgraded to formal as follows:

- Provision of passenger shelters and traders' shelter.
- Provision of universal access.
- Provision of adequate safety measures such as fences and lights.
- Provision of NMT facilities; and
- Provision of proper passenger queuing island and loading bays.

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
<b>1.</b>	<b>General Information</b>								
1.1	Relevant MLM Cluster?	Jane Furse Cluster	Phokoane Cluster	Masemola Cluster	Phokoane Cluster	Phokoane Cluster	Phokoane Cluster	Sekhukhune Cluster	Sekhukhune Cluster
1.2	Economic Zone Name?	YES	YES	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
1.3	<i>Economic Zone classification?</i>								
1.3.1	Primary Growth Point?	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
1.3.1.1	Jane Furse Taxi Rank.								
1.3.1.2	Jane Furse Plaza.								
1.3.1.3	Proposed Jane Furse District Office / Jane Furse Extension 1 Regional Mall.								
1.3.1.4	Proposed Mall and Private Hospital.								
1.3.2	Secondary Growth Point	Not Relevant	YES	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
1.3.3	Local Service Node	Not Relevant	Not Relevant	Not Relevant	YES	YES	YES	YES	YES
1.3.4	Agricultural Serve Node	Not Relevant	Not Relevant	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
1.4	Part of Integrated Public Transport Network. (IPTN)	To be confirmed	To be confirmed	To be confirmed	To be confirmed	To be confirmed	To be confirmed	To be confirmed	To be confirmed
1.5	Name of relevant Corridor? (Road)	CBD	R579 South	R579 North	R579 South	R579 South	R579 South	D2219	D2219
1.6	Relevant Road Authority?	RAL and Local	SANRAL	SANRAL	SANRAL	SANRAL	SANRAL	RAL	RAL

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
<b>2.</b>	<b>Elements of currently Transit Orientated Development (TOD), incorporated.</b>								
2.1	Part of CBD.	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
2.2	Education.	YES	YES	YES	YES	YES	YES	YES	YES
2.3	Health. (Hospital / Clinic)	YES	YES	YES	YES	Not Relevant	YES	YES	YES
2.4	Post Office / Banks.	YES	YES	YES	YES	Not Relevant	YES	YES	YES
2.5	Community Facilities.	YES	YES	YES	YES	YES	YES	YES	YES
2.6	Home Affairs.	YES	FALSE	Not Relevant	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant
2.7	Magistrate Court.	FALSE	FALSE	YES	YES	Not Relevant	Not Relevant	Not Relevant	YES
2.8	Safety and Security.	YES	FALSE	YES	YES	Not Relevant	YES	Not Relevant	YES
2.9	Shopping Centre/s.	YES	FALSE	Not Relevant	Not Relevant	Not Relevant	YES	YES	Not Relevant
2.10	Formal Outlets.	YES	YES	YES	YES	YES	YES	YES	YES
2.11	Informal Retail.	YES	YES	YES	YES	YES	YES	YES	YES
2.12	Hawker Facilities	YES	YES	YES	YES	YES	YES	YES	YES
2.13	Filling Station.	YES	YES	YES	YES	YES	YES	YES	YES
2.14	Traditional Offices	Not Relevant	YES	YES	YES	Not Relevant	Not Relevant	Not Relevant	YES
2.15	Other Businesses.	YES	YES	YES	YES	YES	YES	YES	YES

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
<b>3.</b>	<b>Typical Public Transport Facilities</b>								
3.1	Intermodal Facility.	Required	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
3.2	Bus Terminal	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	YES	Not Relevant	YES
3.3	Formal Taxi Rank	YES	Not Relevant	YES	YES	YES, not used	YES	Not Relevant	YES
3.4	Informal Taxi Rank	YES	YES	Not Relevant	YES	YES	YES	YES	YES
3.5	Off Street off load Facilities	Not Relevant	YES	YES	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant
3.6	Formal On Street Off load Facilities Bus	YES	YES	Not Relevant	Not Relevant	YES	Not Relevant	Not Relevant	Not Relevant
3.7	Formal On Street Off load Facilities Taxi	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
3.8	Holding Facilities	YES	Not Relevant	Not Relevant	Not Relevant	YES	YES	YES	Not Relevant
3.9	Incorporate Public Transport Theme.	Required	Required	Required	Required	Required	Required	Required	Required
3.10	Environmentally Friendly.	Required	Required	Required	Required	Required	Required	Required	Required
<b>4.</b>	<b>Destinations served</b>								
4.1	Local - within MLM.	YES	YES	YES	YES	YES	YES	YES	YES
4.2	Local - From and MLM within SDM.	YES	YES	YES	YES	Not Relevant	YES	Not Relevant	YES
4.3	Long Distance - From MLM within Limpopo Province.	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
4.4	Long Distance - From MLM to other Provinces with RSA.	YES	Not Relevant	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
4.5	Cross Border - From MLM to other Countries in Africa.	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
<b>5. Type of Public Transport Modes</b>									
5.1	Train	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
5.2	Buses	YES	Not Relevant	Not Relevant	YES	Not Relevant	YES	Not Relevant	YES
5.3	Midi buses	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
5.4	Minibus Taxis	YES	YES	YES	YES	YES	YES	YES	YES
5.5	4+1 Taxis	YES	YES	YES	YES	YES	YES	Not Relevant	Not Relevant
5.6	Metered Taxis (Better name)	YES	Not Relevant	Not Relevant	Not Relevant	Not Relevant	YES	YES	YES
<b>6. Type of NMT</b>									
6.1	Walkways	Need to be redesigned	Required	Required	Required	Required	Need to be redesigned	Required	Need to be redesigned
6.2	Bicycle ways	Required	Required	Required	Required	Required	Required	Required	Required
6.3	Universal Accessible Facilities	Required	Required	Required	Required	Required	Required	Required	Required
<b>7. Infrastructure required as part of Facility</b>									

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
5.1.	Access roads	Need to be redesigned	Required	YES	YES	Required	YES	Required	YES
5.2.	Driveways	Need to be redesigned	Required	YES	YES	Required	YES	Required	YES
5.4.	Loading bays with islands	Need to be redesigned	Required	YES	YES	Required	YES	Required	YES
5.5.	Drop off Facilities	Need to be redesigned	Required	Required	YES	Required	Required	Required	Required
5.6.	Road Signs	Need to be redesigned	Required	Required	Required	Required	Required	Required	YES
5.7.	Destination Signs	Need to be redesigned	Required	YES	YES	Required	YES	Required	YES
5.9.	Holding Facilities	Need to be redesigned	Required	Required	Required	Required	Required	Required	Required
5.10.	Safe Bicycle Storage Space.	Need to be redesigned	Required	Required	Required	Required	Required	Required	Required
5.11.	Pedestrian Safety Measures	Need to be redesigned	Required	Required	Required	Required	Required	Required	Required
<b>8.</b>	<b>Ancillary Facilities</b>								
8.1	Information and security offices.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.2	Ablution Facilities	YES	Required	YES	Required	Formal Rank not used	YES	Required	Required

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
8.3	Ticket Offices	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.4	Lights	Required	Required	Required	Required	Formal Rank not used	YES	Required	YES
8.5	Roof Structure/s.	YES	Required	YES	YES	Formal Rank not used	YES	Required	YES
8.6	Facility Furniture.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.7	Intercom.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.8	Wifi	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.9	Branding and advertisement Infrastructure.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.10	Security Cameras.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.11	Wash facilities for Taxi Industry.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
8.12	Offices for Public Transport Operators.	Required	Required	Required	Required	Formal Rank not used	Required	Required	Required
<b>9.</b>	<b>Operation and Maintenance</b>								
9.1	Maintenance Plan and Program link to a Budget.	Required	Required	Required	Required	Required	Required	Required	Required
9.2	Maintenance and Operations Agreement between MLM, Public Transport Operators and Private Sector.	Required	Required	Required	Required	Required	Required	Required	Required
9.4	Facility Manager.	Required	Required	Required	Required	Required	Required	Required	Required
9.5	Facility Management Committee.	Required	Required	Required	Required	Required	Required	Required	Required

Ref Number	DESCRIPTION	JANE FURSE CBD	GLEN COWIE (ST RITAS HOSPITAL)	APEL CROSS / GA MASEMOLA	NEBO / PHOKOANE	VLEISCHBOOM	MORATIWA	MAGNET HEIGHTS	SCHOONOORD
9.6	Access control for Operators (only Legal Operators).	Required	Required	Required	Required	Required	Required	Required	Required
9.7	Law enforcement.	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed
9.8	Role Players part of MLM Transport Forum.	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed
9.9	Interaction between various Government Departments and Spheres.	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed	To be Confirmed

Table 32: Table showing details of Makhuduthamaga Local Municipality transport facilities in different areas within the municipality

The table below contains the steps required to implement Public Transport Facilities at the relevant identified growth points and local service nodes, as indicated above.

<b>STEPS REQUIRED TO IMPLEMENT PUBLIC TRANSPORT FACILITIES AT THE RELEVANT IDENTIFIED GROWTH POINTS AND LOCAL SERVICE NODES.</b>	
<b>Steps</b>	<b>Descriptions</b>
1.	MLM and Role-Players should agree on Integrated Transport System and become part of IDP.
2.	Prioritise Projects.
3.	Identify the possibility of Private and Public Partnerships and Grant Funding. (New Developments should provide required Facilities).
4.	Identify project to form part of 3 Year Budget Term of IDP.
5.	Establish Project Committee with relevant role-player for relevant Projects.
6.	Prepare Scope of Work for every Facility.
7.	Determine phases for Project to be implemented.
8.	Appoint Professional Team for Concept Designs.
9.	Obtain Property where required.
10.	Conduct appropriately Environmental Studies.
11.	Consolidate and Zone the properties appropriately.
12.	Relevant Role-Players Sign Off.
13.	Conduct Detail Designs.
14.	Conduct Procurement process for construction.
15.	Commence construction.
16.	Implementation of maintenance and operations.

Table 33: Steps required to implement public transport facilities at the relevant identified growth points and local service nodes

## 7.7. Implications for Transport Infrastructure Strategy

The following are important:

- Road's rehabilitations and upgrades
- NMT infrastructure
- Public transport facilities

Below are examples of the proposed Transport Infrastructure Rehabilitation Strategy within Jane Furse and Moratiwa Crossing. Further studies and feasibilities should be undertaken to test the viability of the proposals

### 7.7.1 IMPLEMENTATION IN JANE FURSE



Figure 53. Highlighting Jane Furse Challenges

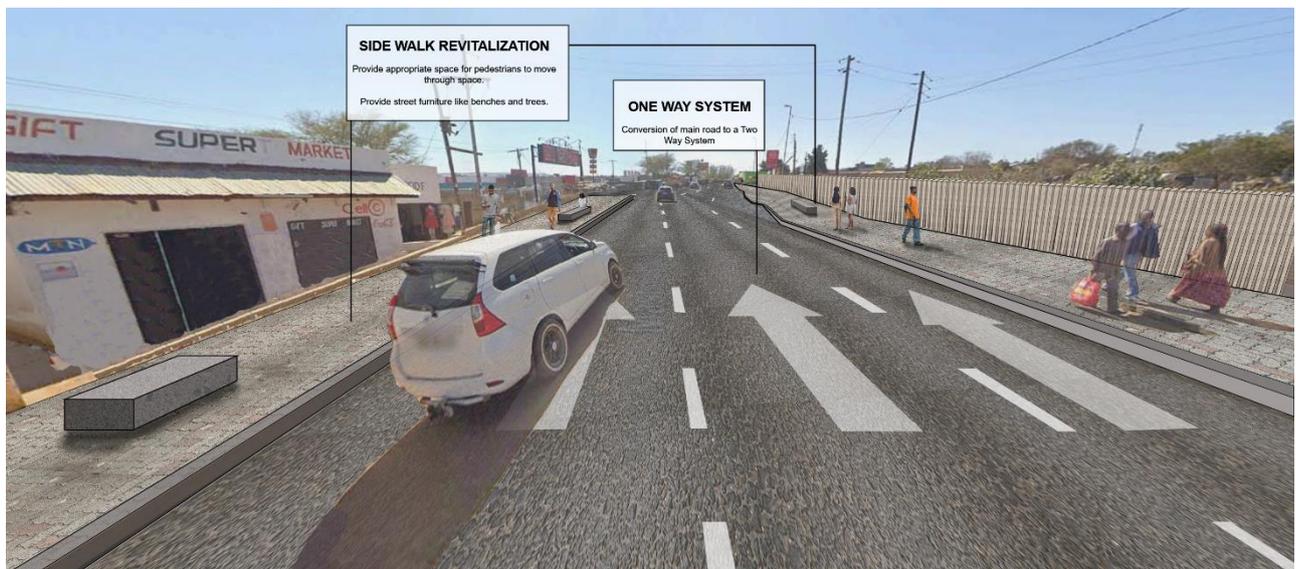


Figure 54. Idea of implementation of Transport Infrastructure Strategy

### 7.7.2 IMPLEMENTATION IN MORATIWA CROSSING



Figure 55. Highlighting Moratiwa Crossing Challenges



Figure 56. Idea of implementation of Transport Infrastructure Strategy

## 8. FREIGHT TRANSPORT STRATEGY

### 8.1. Introduction

The movement of goods and services to different destinations, coupled with reliable, speed, safe, efficient and affordable fashion is one of the fundamental prerequisites for economic growth and trade expansion in any area or municipality. Thus, an integrated transportation system which includes freight transport becomes prerequisite to realize competitive, sound, healthy and sustainable economy. Transportation of freight is a vital element in planning for sustainable prosperous community.

Mining activities within the neighbouring FTLM Municipality (prevalent in Burgersfort and Steelpoort towns) are the catalysts and spine of freight transportation operations over short and long distances. Due to these mining activities that consists amongst others chrome mines, platinum mines, and the smelters are the backbone of Makhuduthamaga LM freight transportation.

Most of the freight handling facilities and heavy industrial activities are cantered along the D2292, and R579 linking it to the rest of the region in terms of both transport and economic activities.

This section presents proposals of freight transportation and mobility within the municipal area considering that the municipal area act as a transit to other destinations.

### 8.2. Freight Proposals

#### 8.2.1. Reduction of Congestion along the R579

In general, the freight traffic is one of the contributing factors to traffic congestion, especially during the peak hours' periods. But it is also being negatively affected by the current levels of private vehicle congestion, causing travel time delays and increased cost of operations. The proposals were made to be considered regarding a strategy for freight which would include the business case for a shift of freight operations to off-peak hours (mainly, nighttime operations) and the establishment of the freight center which would favor the usage of a small freight vehicle over large freight vehicle.

The municipality will also ensure that, wherever it can, paved road infrastructural surfaces will be provided and maintained to reduce noise levels and that their geometrical and operational characteristics correspond to the demands required for the transportation of freight. As for the mining vehicle, an alternative route should be considered that will separate the mining traffic for other traffic. This mining freight vehicle should operate away from the residential area to limit the negative environmental and social impacts. Alternatively, to the use of the road freight mining vehicle, mining house could shift into employing the conveyer belt system; this system will work in the same manner as the rail freight system. This system may bring about some benefits in the economy and thus alleviating congestion, traffic conflict and thereby promoting road safety and the environment. The control and management of overloaded vehicles should be enforced.

#### 8.2.2. Establishment of a Freight Bypass Road Capacity (D2292) on the Periphery of Town

In support to the industrial zones, a freight bypass road is required to get access to different destinations. Freight bypass road needs to be designed to accommodate the heavy vehicles and abnormal loads while the feeder roads and other road in the CBD's will carry commuter vehicles, public transport vehicles and heavy vehicles with less than 5 axles. This concept will enable heavy freight vehicle to use the freight bypass

network as far as possible. This alone will not ensure that freight operators will start using the terminals or freight bypass networks. The strategy is to pull away freight from the densely populated areas or CBD's particularly during peak time. One of the biggest benefits of the freight bypass road along R579 will be behind the Jane Furse CBD, where the road is already congested.

### **8.2.3. Preventing Damages on the Road Systems**

Many of the proposals and strategy action items listed above are planned to address the municipality's desire to reduce the long-term impact of freight on the existing and future road system through demand management, modal shifts and overloading checks. All of these actions will result in a reduced impact on the existing road system.

### **8.2.4. Liaison Structures**

The stakeholders in the delivery of the freight logistics system includes:

- South African Department of Transport.
- Limpopo Department of Transport.
- Department of Public Enterprises (DPE)
- Department of Economic Development
- SDM Planning Authority.
- FTLM Planning Authority.
- Transnet Freight Rail.
- Private sectors (Freight logistics industries, road haulers and freight forwarders);
- Commercial and heavy/mining Industries.
- SANRAL

### **8.2.5. Institutional Arrangements**

The following should be implemented as part of the freight management strategy:

- Freight Road Master Plan
- Feasibility study for the proposed freight road
- Analysis study for the development of freight and logistic feeder

## **8.3. Funding**

The Limpopo Department of Transport through MTEF budgeting should set aside amounts of funding to enable the preparation of the anticipated proposals. This should be accompanied by funding for relevant specialists to ensure implementation of various projects including the freight strategies.

A detailed funding strategy for the mentioned projects is part of the report. .

## 9. NON-MOTORISED TRANSPORT (NMT) PROGRAMME

### 9.1. Introduction

The Non-Motorised Transport (NMT) Programme is a vital component of the Integrated Transport Plan for the municipal area, a region that is transitioning from its rural roots to a more urbanised environment. NMT encompasses modes of transport powered by human or animal effort, without reliance on motors. Often referred to as 'active transport' or 'active mobility,' these modes require physical exertion from the user, apart from animal-driven vehicles.

NMT is also recognized as a form of 'sustainable transport' due to its minimal greenhouse gas emissions compared to motorised transport options. In a developing municipality like the MLM, NMT plays a crucial role, often serving as the first and last mile in public transport journeys. This program not only supports environmental sustainability but also enhances the accessibility and connectivity of the community, aligning with the municipality's evolving transportation needs and urbanisation goals.

### 9.2. Objectives

#### 9.2.1. Enhance Accessibility and Mobility:

Improve the accessibility and connectivity of various parts of the municipality, ensuring that all residents can reach essential services, workplaces, and recreational areas efficiently.

#### 9.2.2. Promote Sustainable Transport:

Encourage the use of non-motorised transport modes to reduce greenhouse gas emissions and promote environmental sustainability in the region.

#### 9.2.3. Reduce Traffic Congestion:

Alleviate traffic congestion by providing alternative transportation options, thereby improving the overall efficiency of the municipality's transport network.

#### 9.2.4. Support Economic Development:

Facilitate economic opportunities by improving access to markets and business areas through reliable and efficient NMT infrastructure.

#### 9.2.5. Enhance Safety:

Implement measures to ensure the safety of NMT users, including the development of dedicated pathways, proper signage, and street lighting, especially since the above seems to be lacking within the municipality, with the dedicated pathways and pavements being taken over by street vendors within the CBD area.

#### 9.2.6. Promote Social Inclusion:

Provide equitable transportation options for all residents, including vulnerable groups such as the elderly, children, and people with disabilities, ensuring their full participation in the community.

#### **9.2.7. Encourage Community Engagement:**

Involve local communities in the planning and implementation of NMT projects to ensure that the solutions meet the specific needs and preferences of the residents.

#### **9.2.8. Improve Public Health:**

Foster healthier lifestyles by promoting active transport options, which involve physical activity and contribute to overall public health and well-being.

#### **9.2.9. Preserve Cultural and Natural Heritage:**

Develop NMT routes that highlight and preserve the cultural and natural heritage of the municipal area, promoting tourism and educational opportunities.

#### **9.2.10. Integrate with Public Transport:**

Ensure seamless integration of NMT with existing (minibus taxis and maxi taxi type/6+1) and future public transport systems (BRT), facilitating easy and efficient multimodal travel.

### **9.3. Proposed measures to promote walking and cycling**

Several key proposals can be utilised to encourage and promote walking and cycling within the jurisdiction of the municipal area and these include the below:

#### **9.3.1. *Develop an NMT Mobility Policy and By-laws:***

Formulate a comprehensive NMT Mobility Policy and supporting by-laws to provide a legal and regulatory framework. This will ensure the structured development and implementation of NMT initiatives, promoting consistent and sustainable practices across the municipality.

#### **9.3.2. *Motivate and Secure Investment Funding Sources:***

Identify and secure diverse funding sources, including government grants, public-private partnerships, and international aid. Prioritize investments in NMT projects and programmes to maximize benefits for both users and society, enhancing infrastructure, safety, and accessibility.

#### **9.3.3. *Create the Municipal NMT Network Plan:***

Develop a detailed NMT Network Plan that includes comprehensive maps for pedestrian and cycling routes. This plan will outline existing and proposed pathways, ensuring connectivity and integration with other transport modes.

#### **9.3.4. *Create Dedicated Cycling and Walking Lanes:***

Construct dedicated lanes for cycling and walking to ensure the safety and convenience of NMT users. These lanes will be strategically placed to connect key areas within the municipality, promoting active transport as a viable option.

**9.3.5. *Conduct Bi-annual User Satisfaction Surveys:***

Implement bi-annual surveys to gauge the satisfaction levels of NMT users regarding specific facilities. The feedback collected will be used to identify areas for improvement and to tailor services to meet user needs effectively.

**9.3.6. *Rollout Education and Public Awareness Programmes:***

Partner with relevant stakeholders to develop and implement education and public awareness campaigns. These programmes will highlight the benefits of NMT, promote safety practices, and encourage more residents to adopt non-motorised transport.

**9.3.7. *Undertake Regular NMT Safety Audits:***

Conduct thorough safety audits of roads and NMT infrastructure at both the initiation and post-implementation stages of projects. These audits will identify potential hazards and ensure that safety standards are maintained.

**9.3.8. *Undertake Detailed Studies of NMT Crime Hotspots:***

Perform in-depth studies to identify and understand crime hotspots within the NMT network. These studies will inform targeted interventions to enhance the safety and security of NMT users.

**9.3.9. *Pilot the Installation of CCTV Cameras:***

Install CCTV cameras at identified NMT crime hotspots and ensure they are monitored by SAPS (South African Police Service). This initiative aims to deter criminal activities and provide a sense of security for NMT users.

**9.3.10. *Implement Initiatives to Improve Access to Bicycles:***

Launch programmes that enhance access to bicycles, such as bicycle distribution initiatives and the promotion of events like Cycling Day. These efforts will encourage greater adoption of cycling as a mode of transport, fostering a culture of active mobility within the community.

**9.4. *The proposed walking and cycling network.***

The proposed walking and cycling network should be aligned with the intermodal transport facilities and Integrated Public Transport Network.

**9.5. *Encouraging and Promoting Public Behavioural Change Through NMT***

To foster a shift in public behaviour towards the adoption of Non-Motorised Transport (NMT), the municipality will implement a series of strategic actions:

**9.5.1. *Engagement with the Sustainable Mobility Subcommittee:***

Actively collaborate with the Sustainable Mobility Subcommittee to develop and promote initiatives that encourage the use of NMT. This partnership will ensure that all actions are aligned with broader sustainability goals and benefit from expert input and support.

**9.5.2. *Marketing Walking, Cycling, and Other Active Forms of NMT:***

Launch marketing campaigns that position walking, cycling, and other forms of active NMT as smart travel choices. These campaigns will emphasize the significant cost savings, environmental advantages, and health benefits associated with NMT, making it an attractive option for residents.

**9.5.3. *Promotion of Strategic NMT Routes:***

Specifically target residents living within 1 km of newly completed strategic NMT routes. Use direct marketing strategies, such as flyers, community meetings, and local advertisements, to inform them about the routes and encourage their use.

**9.5.4. *Support for 'Car-Free Days' and 'Open Streets':***

Continue to endorse and organize events like 'car-free days' and 'open streets.' These events will temporarily restrict motorized traffic, allowing residents to experience the benefits of a car-free environment and promoting the use of NMT.

**9.5.5. *Promotion of Recreational NMT Activities:***

Support and advertise recreational activities such as walking, running, and cycling through the municipality's website and social media channels. Highlighting these activities will encourage residents to participate and integrate NMT into their daily lives.

By implementing the above listed actions, the municipality aims to create a supportive environment for NMT, encouraging residents to embrace sustainable, active modes of transport as part of their everyday lives.

**9.6. *Infrastructure***

Investment in NMT infrastructure is crucial for the successful implementation of the ITP MLM. Developing a robust NMT infrastructure will not only facilitate safe and efficient travel for pedestrians and cyclists but also promote sustainable urban growth. Essential infrastructure includes dedicated cycling lanes and pedestrian pathways, which ensure the safety and convenience of NMT users by providing clearly marked and separate routes from motorised traffic. Additionally, the construction of secure bicycle parking facilities and pedestrian crossings will enhance accessibility and encourage more residents to adopt active transport modes. Installing adequate lighting along these routes will improve safety, especially during early morning and evening hours. Furthermore, incorporating traffic calming measures, such as additional speed bumps and pedestrian-friendly

signals, will create a safer environment for all road users. Investing in these infrastructures will support the municipality's transition towards a more sustainable and inclusive transport system, ultimately benefiting the entire community by reducing traffic congestion, lowering emissions, and fostering healthier lifestyles.

## 9.7. Implications for non-motorised transport

Implementing NMT strategies in the MLM presents both challenges and opportunities, especially given the context of major traffic congestion in the Central Business District (CBD) and the proliferation of street vendors occupying pedestrian pavements.

### 9.7.1. Traffic Congestion Alleviation:

**Opportunity:** Developing NMT infrastructure can significantly alleviate traffic congestion by encouraging more people to walk or cycle instead of using motor vehicles. This shift can reduce the number of cars on the road, easing traffic flow and improving overall mobility in the CBD.

**Challenge:** During the transition phase, integrating NMT infrastructure may initially exacerbate congestion due to construction activities and the reallocation of road space.

### 9.7.2. Pedestrian Safety and Accessibility:

**Opportunity:** Creating dedicated NMT pathways will improve the safety and accessibility of pedestrians, ensuring they have a clear, secure space to walk. This can enhance the overall quality of life and encourage more people to opt for walking as a primary mode of transport.

**Challenge:** The presence of street vendors on pavements complicates the implementation of these pathways. Shifting and/or relocating vendors and ensuring they have designated areas to conduct their business without impeding pedestrian movement will require careful planning and community engagement.

### 9.7.3. Economic Implications:

**Opportunity:** NMT infrastructure can boost the local economy by increasing foot traffic, which benefits businesses and vendors. Enhanced accessibility can attract more visitors to the CBD, fostering a vibrant commercial environment.

**Challenge:** Vendors who currently occupy pedestrian pavements may face disruptions during the implementation of NMT projects. Providing alternative spaces and support during the transition will be essential to mitigate any negative economic impacts on this community.

### 9.7.4. Environmental Benefits:

**Opportunity:** Promoting NMT can lead to substantial environmental benefits, including reduced air pollution and lower greenhouse gas emissions. This aligns with broader sustainability goals and contributes to a healthier urban environment.

**Challenge:** Immediate environmental benefits may be delayed if initial congestion increases due to construction and reallocation of road space.

### 9.7.5. Community and Cultural Impact:

**Opportunity:** A well-implemented NMT strategy can foster a sense of community by creating shared public spaces that encourage social interaction and physical activity. Promoting active transport can also have long-term health benefits for residents.

**Challenge:** Balancing the needs of different community stakeholders, including pedestrians, cyclists, vendors, and motorists, will require ongoing dialogue and collaboration to ensure that NMT initiatives are inclusive and equitable.

In conclusion, while the implementation of NMT in Makhuduthamaga Local Municipality presents several challenges, particularly related to existing traffic congestion and the use of pavements by street vendors, the long-term benefits of reduced congestion, improved safety, economic vitality, and environmental sustainability make it a worthwhile endeavour. Strategic planning, stakeholder engagement, and phased implementation will be key to overcoming these challenges and realizing the full potential of NMT in the municipality.

## 10. FUNDING STRATEGY AND SUMMARY OF PROPOSALS AND PROGRAMMES

### 10.1. Introduction

Municipalities have at their disposal various sources of funding that they can apply for to carry out projects.

- Medium Term Revenue and Expenditure Framework (MTREF) Budget
- Public Transport Infrastructure and Systems Grant (PTISG) from National Treasury
- Public Transport Operations Grant (PTOG)
- Division of Revenue Act/Bill (DORA)
- Municipal Infrastructure Grant (MIG)
- Capital Replacement Revenue (CRR)
- Public Transport Infrastructure System Funding Allocations (PTISF)

As a requirement, Municipalities are supposed to draw up a business plan for submission to the Department of Transport. The business plan is used as a motivational tool for funding from the PTISG from the National Treasury through the Department of Transport. Sources of funding can be classified into two categories, these can either be internal or external.

### 10.2. Funding strategy

Internal Funding is guided by the Municipal Finance Management Act, (MFMA). Changes to the current budget allocations are only possible by means of the Adjustments Budget process which is performed mid-term of a particular financial year.

#### 10.2.1. Internal Funding Overview

Internal funding is governed by the Municipal Finance Management Act (MFMA). Adjustments to current budget allocations are permissible only through the Adjustments Budget process, conducted mid-term of the financial year.

#### 10.2.2. Internal Funding:

The Municipal Finance Management Act, Act 56 of 2003 (MFMA), in conjunction with the Local Government: Municipal Systems Act, Act 32 of 2000, ensures alignment of municipal priorities, plans, budgets, implementation actions, and reports. These Acts outline the key components of the financial management and accountability cycle and their necessary alignments.

#### 10.2.3. Public Transport Infrastructure Systems Funding Allowance (PTISF):

The PTISF is a development fund that identifies projects aimed at achieving specific Department of Transport (DoT) objectives. Projects are approved by the DoT based on submissions from local municipalities and are evaluated on merit. Approved projects are reflected in the Medium-Term Revenue and Expenditure Framework (MTREF) budget.

#### 10.2.4. Capital Replacement Reserve (CRR):

The CRR allocation enables municipalities to implement, upgrade, and replace infrastructure and equipment. This allocation is also reflected in the MTREF budget. Approved by Cabinet in 2007 for 12 identified cities, funding is provided by National Treasury through the Department of Transport.

### 10.2.5. *Municipal Land Transport Fund (MLTF):*

The MLTF is a critical funding mechanism for all Urban Mobility Directorate's priority programs and projects. Sections 27 and 28 of the National Land Transport Act (NLTA) mandate the municipality to manage the MLTF, which includes receiving, raising, investing, and spending funds for transport-related functions.

Section 27: Requires the municipality to administer the MLTF, using it to cover costs of municipal functions as outlined in the NLTA and to support any expenditures that promote the objectives of the NLTA within the municipality's area.

These obligations, managed by the Urban Mobility Directorate, are subject to the MFMA. Thus, all expenditures related to the transport network or its operations by the Urban Mobility Directorate must be managed through the MLTF.

### 10.2.6. *External Funding:*

The MLM can explore various sources of funding to improve its transport sector. Some potential sources include:

- **Municipal Infrastructure Grant (MIG):** The MIG is a grant provided by the national government to municipalities for the development of infrastructure, including transportation. The municipality can apply for MIG funding to upgrade roads, construct public transport facilities, and improve transportation infrastructure within the municipality.
- **Provincial Government Funding:** The provincial government of Limpopo may allocate funds specifically for transport infrastructure projects within the municipality. The municipality can engage with the provincial government to access funding for road maintenance, public transport initiatives, and other transportation projects.
- **Public-Private Partnerships (PPPs):** The municipality can explore partnerships with private entities to fund transportation projects. PPPs can involve private investment in infrastructure development in exchange for revenue streams or other benefits. This approach can help supplement public funds and accelerate the implementation of transport projects. Possible private companies to approach include the mining sector as their commodities are constantly transported on public roads and their workers could benefit from the development of public transport.
- **Development Finance Institutions (DFIs):** DFIs such as the Development Bank of Southern Africa (DBSA) or the Industrial Development Corporation (IDC) provide financing for infrastructure projects, including transportation. The municipality can approach DFIs to secure loans or grants for transport infrastructure development.
- **Local Revenue Generation:** The municipality can explore avenues for generating revenue locally to fund transport projects. This may include levying transport-related taxes or fees, implementing parking fees, or generating income from advertising on public transport infrastructure.
- **Special Grant Programs:** Various government departments or agencies may offer special grant programs for specific transport-related initiatives. The municipality can explore opportunities for funding through programs aimed at road safety, public transport improvement, or sustainable transport initiatives.

- **International Funding Agencies:** International organizations such as the World Bank, African Development Bank (AfDB), or United Nations agencies may provide funding or technical assistance for transport projects in developing countries. Makhuduthamaga Municipality can explore partnerships with these agencies to access funding for transportation infrastructure development.

By exploring a combination of these funding sources and engaging with relevant stakeholders, Makhuduthamaga Local Municipality can secure the necessary funding to improve its transport sector and address key transportation challenges within the municipality.