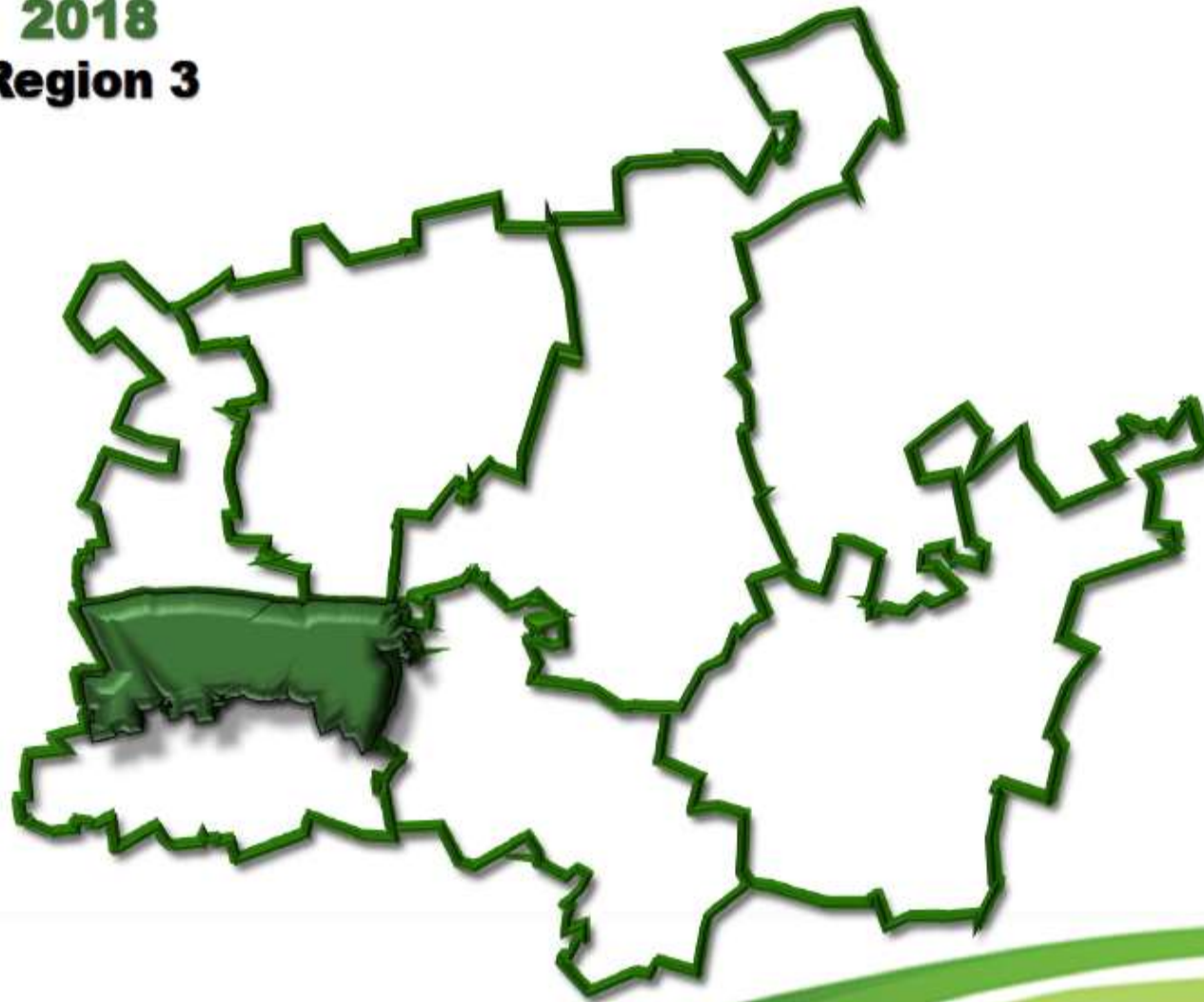


**Regionalized Municipal  
Spatial Development Framework  
2018  
Region 3**



## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	<b>iv</b>	<b>2.4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE</b>	<b>23</b>
<b>GLOSSARY OF TERMS</b>	<b>vi</b>	<b>2.5 ENVIRONMENTAL STRUCTURING CONCEPT</b>	<b>28</b>
<b>PART ONE: INTRODUCTION</b>	<b>1</b>	2.5.1 HERITAGE AND CULTURAL SITES	28
1.1 BACKGROUND	1	2.5.2 OPEN SPACE AND CONSERVATION AREAS	28
1.2 LEGISLATIVE FRAMEWORK	1	2.5.3 RURAL MANAGEMENT	30
1.3 APPROACH AND METHODOLOGY	2	<b>PART THREE: REGIONAL ANALYSIS</b>	<b>33</b>
1.4 THE USE OF REGIONALIZED SPATIAL DEVELOPMENT FRAMEWORKS AND MAPS	2	3.1 LOCALITY	33
<b>PART TWO: METROPOLITAN CONTEXT</b>	<b>4</b>	3.2 AREA	33
2.1 POLICY FRAMEWORK	4	3.3 DEMOGRAPHIC INFORMATION	33
2.1.1 NATIONAL DEVELOPMENT PLAN: VISION FOR 2030: 2014	5	3.4 WARD PRIORITIES FOR 2015/16	36
2.1.2 THE COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME, 2009	5	3.5 REGIONAL CHARACTERISTICS	36
2.1.3 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2030	7	3.6 STRUCTURING ELEMENTS	37
2.1.4 THE GAUTENG RURAL DEVELOPMENT PLAN: 2014	9	3.7 ECONOMIC BASE	38
2.1.5 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013	10	3.8 PHYSICAL ENVIRONMENT	38
2.1.6 THE SPATIAL VISION OF THE CITY	11	3.8.1 NATURAL STRUCTURING ELEMENTS	38
2.1.7 INTEGRATED DEVELOPMENT PLAN REVISION 2017/2021	12	3.8.2 NODES	39
2.1.8 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK (2012)	13	3.8.3 LINEAR ACTIVITY AREAS	39
2.1.9 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY	14	3.8.4 RESIDENTIAL	40
2.1.10 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP)	14	3.8.5 MOVEMENT AND TRANSPORT SYSTEM	40
2.2 THE CITY STRUCTURE	15	3.8.5.1 Road network and Private Transport	40
2.2.1 HIERARCHY OF NODES	16	3.8.5.2 Public Transport	41
2.2.2 SPECIALISED ACTIVITY AREAS	17	3.8.6 SERVICE INFRASTRUCTURE	41
2.3 GROWTH MANAGEMENT	18	3.9 KEY ISSUES AND S.W.O.T ANALYSIS	41
2.3.1 URBAN EDGE	19	3.9.1 STRENGTHS	41
2.3.2 TSHWANE RETAIL STRATEGY	19	3.9.2 WEAKNESSES	42
2.3.3 RETAIL IN URBAN CORES	19	3.9.3 OPPORTUNITIES	43
2.4 MOVEMENT AND CONNECTIVITY	20	3.9.4 THREATS	43
2.4.1 URBAN FORM AND TRANSPORT INTEGRATION	21	3.9.5 ROLE AND FUNCTION	43
		3.10 DEVELOPMENT TRENDS IN REGION 3	44

<b>PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK</b>	46		
4.1 INTRODUCTION	46	4.15.5 MANAGEMENT ZONES	97
4.2 IMPROVE ACCESS AND LINKAGES	46	4.15.6 AGRICULTURAL HIGH POTENTIAL AREAS/ BIODIVERSITY ZONE	98
4.3 IMPROVE THE PROVISION OF SOCIAL SERVICES	46	4.15.7 SENSITIVE PROTECTED AREAS/BIODIVERSITY ZONE	98
4.4 BROADEN RANGE OF HOUSING TYPOLOGIES AND UPGRADING OF RESIDENTIAL AREAS	46	4.15.8 SENSITIVE RIDGE AREAS	98
4.5 CONSERVATION	46	4.15.9 HERITAGE AND CULTURAL PROTECTED AREAS	98
4.6 GEOLOGY	47	4.15.10 TOURISM POTENTIAL PLACES/AREAS	99
4.7 METROPOLITAN NODES/TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)	48	4.15.11 CONSERVANCIES	99
4.7.1 CAPITAL CORE – INNER CITY	48	4.15.12 GAME AND NATURE RESERVES	99
4.7.2 BROOKLYN METROPOLITAN NODE	49	4.15.13 MINES AND PLACES OF MANUFACTURING	99
4.7.3 HATFIELD METROPOLITAN NODE	49	4.15.14 HUMAN SETTLEMENTS	99
4.7.4 SAULSVILLE URBAN CORE	50	4.15.15 COMMUNITY SERVICE CENTRES	100
4.7.5 MENLYN METROPOLITAN NODE	50	4.15.16 HERITAGE IMPACT	102
4.8 REGIONAL / LOCAL / SPECIALISED NODES	50	4.16 OPEN SPACE AND ENVIRONMENTAL AREAS	103
4.9 JOB OPPORTUNITY / MIXED USE AREAS	52	4.17 WETLAND MANAGEMENT PLAN FOR TSWANE	107
4.10 FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	53	4.18 SOCIAL FACILITY PLANNING	109
4.11 DEVELOPMENT GUIDELINES	62	<b>PART FIVE: DETAIL PRECINCT PLANS</b>	110
4.12 RESIDENTIAL	77	5.1 EXISTING PRECINCT PLANS	110
4.12.1 CONCENTRATION ZONES	79	5.1.1 TSHWANE INNER CITY DEVELOPMENT STRATEGY	110
4.12.2 LINEAR ZONES (CORRIDORS AND SPINES)	81	5.1.2 PRETORIA INNER CITY SPATIAL DEVELOPMENT FRAMEWORK	111
4.12.3 SUBURBAN DENSIFICATION ZONES	82	5.1.3 TSHWANE INNER CITY PROJECT (RE KGABISA TSHWANE)	111
4.12.4 LOW DENSITY ZONES	84	5.1.4 ARCADIA STREET SPATIAL DEVELOPMENT FRAMEWORK	111
4.12.5 RURAL DIVISIONS	84	5.1.5 GROENKLOOF SPATIAL DEVELOPMENT FRAMEWORK	112
4.13 SUSTAINABLE HUMAN SETTLEMENTS	85	5.1.6 DRAFT BROOKLYN NODE SPATIAL DEVELOPMENT FRAMEWORK	112
4.13.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION	85	5.1.7 HATFIELD SPATIAL DEVELOPMENT FRAMEWORK	114
4.13.2 SOCIAL HOUSING	86	5.1.8 SAULSVILLE NODE	121
4.14 MOVEMENT SYSTEM	89	5.1.9 INTEGRATED COMPACTION AND DENSIFICATION STRATEGY FOR PRETORIA WEST RESIDENTIAL PRECINCTS	121
4.14.1 HIGHWAY PLANNING PROJECTS OF A STRATEGIC NATURE	89	5.1.10 MENLYN NODE AND SURROUNDING AREAS SDF	122
4.14.2 RAIL	89	5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)	123
4.14.3 ROAD NETWORK	90	5.2.1 CITY WIDE POLICY PRIORITIZATION	124
4.14.4 BUS RAPID TRANSIT (IRPTN SYSTEM)	90	5.2.2 REGION 3 PRIORITY	125
4.14.5 NMT AND UNIVERSAL ACCESS	92	5.3 PLANNING POLICY RATIONALISATION	126
4.15 RURAL AREAS	96	<b>PART SIX: REFERENCES</b>	128
4.15.1 MAJOR RURAL ROADS	96		
4.15.2 URBAN EDGE	96		
4.15.3 DEVELOPMENT EDGE	96		
4.15.4 FUTURE URBAN DEVELOPMENT AREAS	97		

## ABBREVIATIONS

BEPP	- Build Environment Performance Plan	LRT	- Light Rail Transit
BRT	- Bus Rapid Transit	LSDF	- Local Spatial Development framework
CAPEX	- Capital Expenditure	MSA	- Local Government: Municipal Systems Act 32 of 2000
CaPS	- Tshwane Capital Planning System	MSDF	- Metropolitan Spatial Development Framework
CBD	- Central Business District	NDF	- National Development Plan, Vision for 2030.
CITP	- Tshwane Comprehensive Integrated Transport Plan	NDP	- National Development Plan
COT	- City of Tshwane	NDPG	- Neighbour Development Program Grant
CRDP	- Comprehensive Rural Development Program	NMT	- Non-Motorized Transport
DRDLR	- Department of Rural Development and Land Reform	PNE	- Protected Natural Environment
EIA	- Environmental Impact Assessment	PRASA	- Passenger Rail Agency of South Africa
EMF	- Environmental Management Framework	RDP	- Reconstruction and Development Programme
GDARD	- Gauteng Department of Agriculture and Rural Development	RSDF	- Regionalized Spatial Development Framework
GGP	- Gross Geographic Product	SAPOA	- South African Property Owners Association
GITP	- Gauteng 25-Year Integrated Transport Master Plan	SDF	- Spatial Development Framework
GLA	- Gross Leasable Area	SPLUMA	- Spatial Planning and Land Use Management Act, 16 of 2013.
GRDP	- Gauteng Rural Development Plan	SPTN	- Strategic Public Transport Network
GSDF	- Gauteng Spatial Development Framework	TOD	- Transport Orientated Development
ICLEI	- Local Governments for Sustainable Development	TOSF	- Tshwane Open Space Framework
ICT	- Information and Communication Technology	UNS	- Urban Network Strategy
IDF	- Integrated Development Framework	UP	- University of Pretoria
IDP	- Integrated Development Plan	ZOC	- As per CDS: Zone of Choice
IGRFA	- Intergovernmental Relations Framework Act, 13 of 2005		
ITP	- Integrated Transport Plan		

## GLOSSARY OF TERMS

### ACTIVITY NODES

- Areas of concentration of mixed land-uses.

### ACTIVITY SPINES

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

### ACTIVITY STREETS

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

### CAPITAL CORE

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- Historically, the inner city was the geographical heart and center of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regard to the concentration of retail, office and government buildings to be found in the area.
- The Capital Core must:
  - Be the focal point for housing government departments
  - Be developed to a higher than average density, supporting all principles of smart growth.

### CITY OF TSHWANE LAND USE MANAGEMENT BY-LAW

- To give effect to "Municipal Planning" as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and

land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

### COMPACT

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

### CONCENTRATION ZONES

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

### COT

- City of Tshwane.

### DENSIFICATION

- Increase of residential density following the guidelines of the Compaction and Densification Strategy, May 2005.

### EMERGING NODES

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realization of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.



## INDUSTRIAL USES

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

## INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

## INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

## LIVEABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users including pedestrians, bicyclists and transit riders.

## LINEAR ZONES

- As per Compaction and Densification Strategy referring to activity spines and linear channels forming a lattice of movement.

## LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

## METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.

- Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

## MIXED USES

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed-uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses/rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.

## NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed uses development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and their significance within the city.

## OFFICE USES

- These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

## PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

## SPLUMA

- Spatial Planning and Land Use Management Act (Act 16 of 2013).

## SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones or along linear development spines.

## SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations (in terms of SPLUMA objectives)

## SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept that has two areas of emphasis: 1) human 2) sustainable (in terms of SPLUMA Principles) "The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

## TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transport-oriented development (TOD) is a mixed-use residential or commercial area designed to maximise access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT stop, or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 500 to 800 m from a transit stop, as this is considered to be a convenient distance for pedestrians. TOD development guidelines are further in terms of the **Urban Hub Design Toolkit: National Treasury. 2013**

## TRANSPORT CORRIDORS

- For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 3. They are regarded as the main public transport channels of the region, which implies the prioritising of public transport and non-motorised transport over private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these corridors should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

## URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to metropolitan nodes. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

## PART ONE: INTRODUCTION

### 1.1 INTRODUCTION AND LEGISLATIVE FRAMEWORK

Before dealing with the content of the document it is necessary to draw the attention of the reader to the list of abbreviations and glossary of terms hereunder, to which shall be referred to and which may be repeated in this introduction.

After the Local Government Elections of 2016, the Municipality was required to adopt its Integrated Development Plan ("IDP") in terms of the Local Government Municipal Systems Act, 32 of 2000 ("MSA"). In terms of section 26(1)(e) of the MSA the IDP shall consist of various components including a Spatial Development Framework ("SDF") as an integral part of the IDP.

Similarly the Spatial Planning and Land Use Management Act, 16 of 2013 ("SPLUMA") refers to the MSA and the need to have a Municipal Spatial Development Framework ("Municipal SDF") prepared and adopted as part of the IDP. Referred to herein as interchangeably as the "SDF" and the "Municipal SDF".

In pursuance thereof, a report was drafted and adopted by Council on 25 May 2017, which authorized the drafting, finalization and further public participation of the SDF in terms of the Spatial Planning and Land Use Management Act, 16 of 2013.

The public participation required both in terms of the provisions of the MSA, as part of the IDP, as well as the public participation in terms of SPLUMA was completed by 10 December 2017. The purpose as per the legislation for the extensive public participation and engagement was to solicit as many comments as possible for consideration and incorporation thereof into the SDF.

The Regionalized Spatial Development Frameworks for the different Regions in Tshwane collectively form the sum of the SDF. The SDF is considered to be the implementation mechanism of the spatial component for the Roadmap Towards Tshwane 2030, Municipal Spatial Development Framework, as well as other strategic policies with a spatial emphasis, such as but not limited to

the Council approved Densification and Compaction Strategy, Retail Strategy, Rural Strategy, Tshwane Integrated Transport Plan, the Tshwane Open Space Framework, etc.

### 1.2 THE SPATIAL DEVELOPMENT FRAMEWORK

A Spatial Development Framework guides and informs all development and forms part of the IDP in terms of Section 35 (2) of the MSA.

The content of these plans "shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality".

A Spatial Development Framework *inter alia* must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Provide guidelines for development and land use decision-making by the municipality.

The IDP, SDF and RSDF's focuses on spatial transformation, economic transformation and ecological transformation as specific objectives envisioned in the Roadmap Towards Tshwane 2030.

This Regionalized Spatial Development Framework was prepared in accordance with the above mentioned legislation.



### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on *inter alia* the following approved policies and plans:

- National Development Plan, 2014
- Comprehensive Rural Development Programme, 2009
- Gauteng Spatial Development Framework: 2030; 2016
- Gauteng Rural Development Plan, 2014
- Gauteng 25-year integrated Transport Master Plan, 2013
- The Integrated Development Development Plan 2017/2018
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region (MSDF, 2012).
- City of Tshwane Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines, 2014.
- The City of Tshwane Comprehensive Integrated Transport Plan, 2016.
- The City of Tshwane Bioregional Plan, 2016.

The framework was also based on best practices applied internationally on the development of Municipal SDF / RSDF. See references used at the end of the document in the compilation of the framework.

The RSDF 2017: Region 3 was prepared in accordance with the following mentioned highlighted principles in Chapter 2 and specifically section 7(a) of SPLUMA:

- Indicate where densification should take place and promote economic and social inclusion;
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets;
- Indicate where public and private development infrastructure investment should take place;
- Indicate desired development and land use patterns in Region 3 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system;
- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning;

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be;
- Provide guidelines for development and land use decision-making by the municipality in Region 3.

This framework obtains its guidelines, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by legislation. In the following section the different policies and guidelines are discussed in detail that are applicable.

### 1.4 THE USE OF REGIONALIZED SPATIAL DEVELOPMENT FRAMEWORKS AND MAPS

As a point of departure in terms of the legislation it is within the sole preserve of Council to approve the IDP and its component part i.e. the SDF. It should be understood that no land development applications decisions can have the effect of materially amending the RSDF's or undermining the IDP with reference to Section 35 of the MSA. However, the context of section 22 of SPLUMA should be noted for purposes of the interpretation of this document.

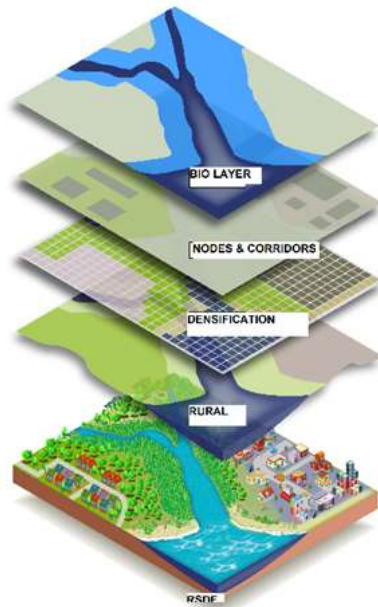
The burden on a Municipality in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no land development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such land development proposals have merit, it should be tested against the overall objectives of the policy documentation and formally incorporated into the RSDF to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit departure should be based on specific criteria or threshold requirements, which requirements shall in the sole opinion of the Municipality be complied with, in order to depart or amend the RSDF or any component thereof. Keeping in mind that if a proposal is so material as to impact on the overall objectives of the SDF's or IDP, it can only be formally amended by the

legislative body of Council, with public participation. The provisions of the content of the City of Tshwane Land Use Management By-law, 2016 shall apply.

## MAPS AND PRINCIPLES

The different principles as indicated in Part 4 must be interpreted per Map and against the principles as specified in the document. For example density applications will be evaluated according to the density map and accompanying principles as specified in Part 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The same principles will apply for the Rural map in Part 4. The composite map at the end of the document must only be regarded as a schematic representation of the principles. . The Bio diversity map will be used for all environmental issues and forms the basis of the RSDF maps. The composite map at the end of the document must only be regarded as a schematic representation of the principles.



## INFRASTRUCTURE

Land development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the Municipality with reference to Section 40 of SPLUMA can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of the Municipality. The availability of infrastructure shall not be regarded as sufficient support for a land development proposal or application. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply:

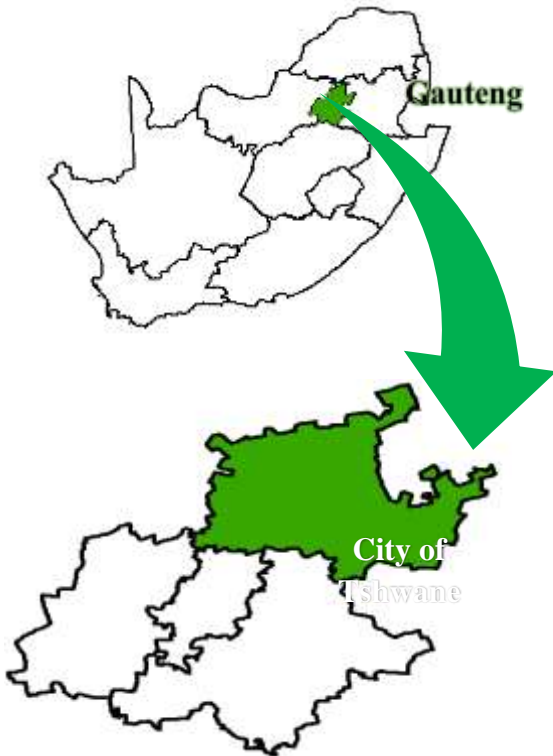
Any land development application submitted and pending prior to the adoption of this RSDF, which relied on the provisions of the previously approved and adopted MSDF's or RSDF's, in support of the application shall be dealt with in terms of that MSDF or RSDF; provided that if this RSDF in the sole discretion and interpretation of the Municipality, the application may be considered against this RSDF. This provision shall not be applicable if the application by evaluation, against this RSDF, shall have the result of negatively impacting on the rights of an applicant or interested parties.

The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

### 2.1 POLICY FRAMEWORK

This framework obtains its guidelines, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act (Act 16 of 2013). In the following section the different policies and guidelines are discussed that are applicable to spatial planning.

#### APPLICABLE POLICY FOR RSDF 2018



**National Development Plan; 2014**

**Spatial Planning and Land Use Management Act, 2013, The Comprehensive Rural Development Programme Urban Hub Design Toolkit: National Treasury: 2013,**

**Gauteng  
Gauteng Spatial Development Framework : 2030, Gauteng Rural Development Plan: 2014, Gauteng 25 Year Integrated Transport Master Plan : 2013, Gauteng Environmental Management Framework : 2014**



#### Tshwane

**Integrated Development Plan  
Revision : 2017/2021  
Built Environment Performance Plan (BEPP) : 2017/18  
Metropolitan Spatial Development Framework : 2012,  
Tshwane RSDF 2013  
Tshwane Comprehensive Integrated Transport Plan :2016  
(TRT): Density and Intensification Guidelines: 2014  
Tshwane, Vulnerability Assessment to Climate Change:2015  
Tshwane, Wetland Management Plan: 2016**



#### RSDF 2018



### 2.1.1 NATIONAL DEVELOPMENT PLAN: VISION FOR 2030: 2014

The overarching principles of spatial development in terms of the National Development Plan (p 246) are that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities and providing affordable public transport, is seen as complementary strategies to this principle (p 16). Transportation networks are seen as the key to spatial transformation (p 238) and the accommodation of diverse household types is encouraged (p 254).
- Spatial sustainability – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (p 33).
- Spatial resilience – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (p 256).
- Spatial quality – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (p 164).
- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (p 247).



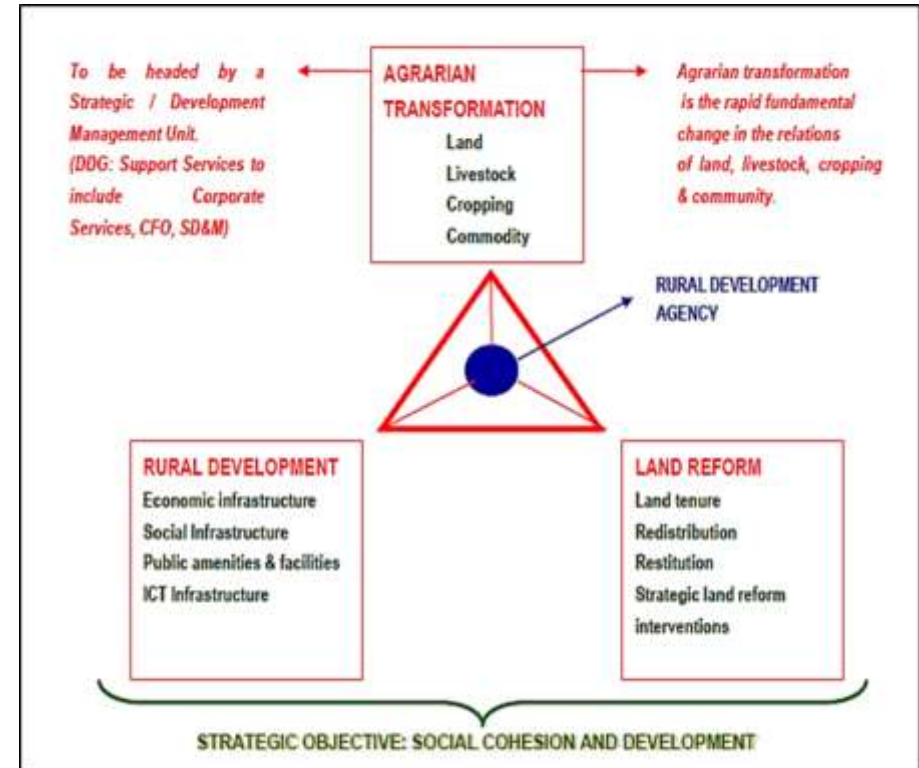
### 2.1.2 THE COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME, 2009

The CRDP was approved by Cabinet in August 2009, aimed at being an effective response against poverty and food insecurity by maximizing the use and management of natural resources to create vibrant, equitable and sustainable rural communities. The CRDP is meant to improve the standards of living and welfare of rural communities but also rectify past injustices through rights based interventions and address skewed patterns of distribution and ownership of wealth and assets. The CRDP is premised on a proactive participatory community-based planning approach rather than an interventionist approach to rural development. Therefore, the CRDP

seeks to facilitate integrated development and social cohesion through participatory approaches in partnership with various stakeholders like other government departments, non-governmental organisations, the business sector and the communities, in order to enhance socio-economic development issues.

The vision of the CRDP is to create vibrant, equitable and sustainable rural communities by: contributing to the redistribution of 30% of the country's agricultural land; improving food security of the rural poor; creating business opportunities, de-congesting and rehabilitating over-crowded former homeland areas; and expanding opportunities for women, youth, people with disabilities and older persons who stay in rural areas. The vision will be achieved through a three-branched strategy based on: 1) Agrarian Transformation; 2) Rural Development; and 3) Land Reform.

- 1) **Agrarian Transformation** is the rapid fundamental change in the relations of land, livestock, cropping and community. Focusing on, but not limited to, i) the establishment of rural and agro-industries, co-operatives, cultural initiatives and vibrant local markets in rural settings; ii) the empowerment of rural people and communities (especially women and youth); and iii) promote farming (both crop and livestock), food security and related value chain development and champion for increased production and the sustainable use of natural resources.
- 2) **Rural Development** is all about enabling the rural communities to take control of their own destiny by investing in the improvement and development of economic and social infrastructure which are critical to unlocking the development potential of rural areas;
- 3) **Land Reform** is a national priority which is also entrenched in in the Constitution in order to address the injustices of the past, ensure the sustainable use of land and warrant that public land is administered effectively. The land reform programme focuses on the redistribution, tenure reform and restitution of land; and the establishment of agri-villages for local economic development on farms and communal land.



Source: Comprehensive Rural Development Programme, 2009



### 2.1.3 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2030.

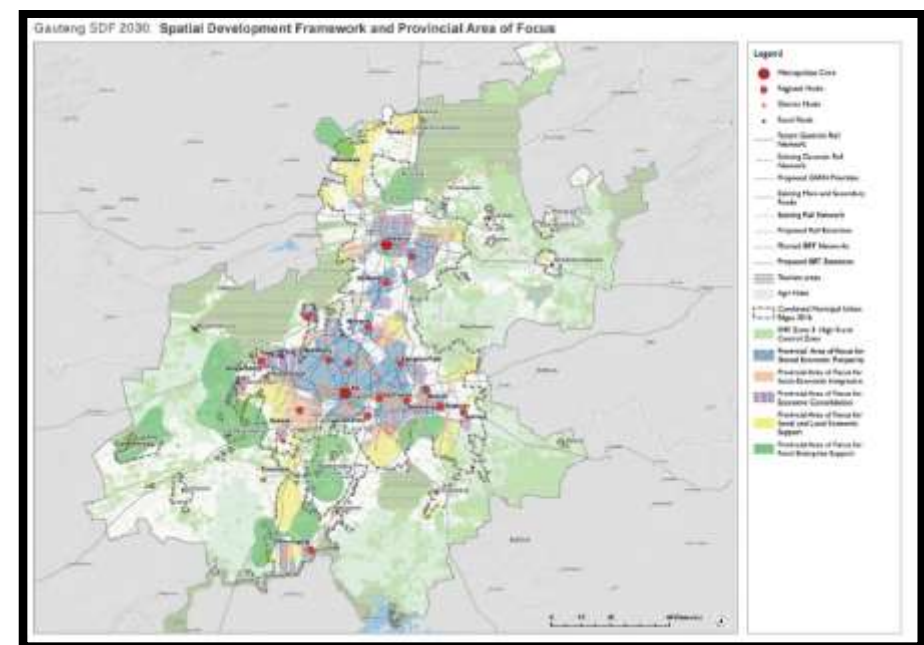


The GSDF 2030 is guided and informed by the national legal framework; international, national and provincial spatial policy directives; and municipal Spatial Development Frameworks. SPLUMA provides South Africa with a single land development process and regulates the compilation and review processes of national, provincial, regional and municipal SDFs. All spheres of government must prepare and adopt SDFs, guided by the development principles of spatial justice, spatial sustainability, efficiency, spatial resilience and good administration.

Provincial SDFs are an integral part of national spatial planning and governance, and key components in the overall structure and functioning of provincial government, especially spatial planning and governance. GSDF 2030 is aligned with Gauteng's 10-Pillar Programme of Transformation, Modernisation and Re-Industrialisation<sup>2014</sup>, Gauteng 25-Year Integrated Transport Master Plan 2013, Gauteng Provincial Environmental

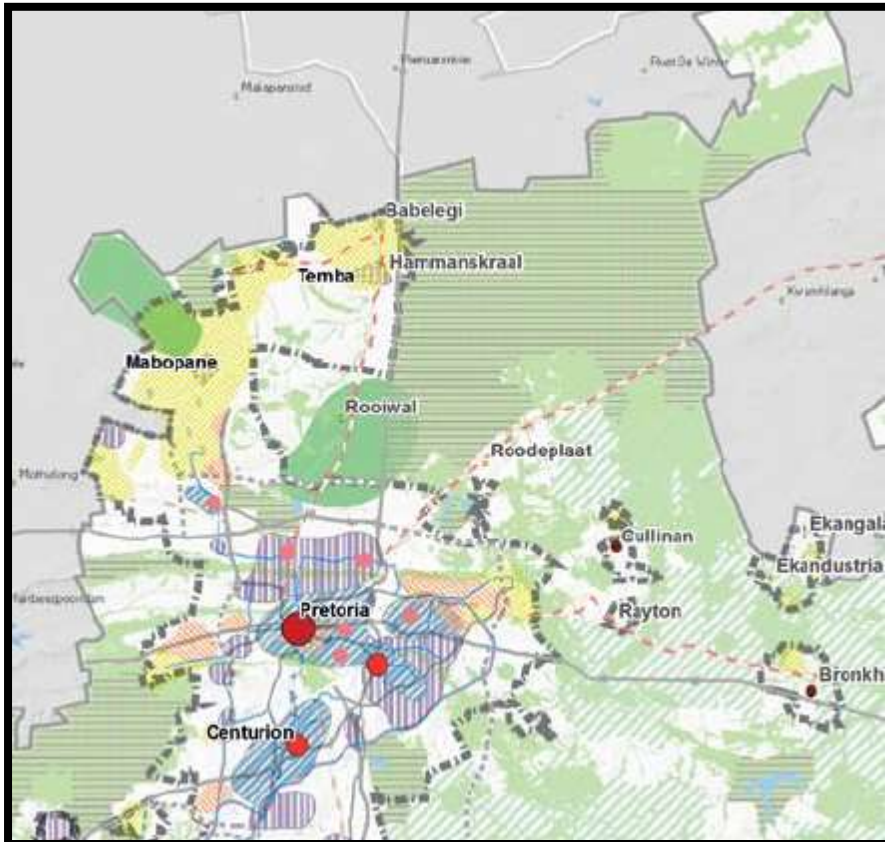
Management Framework 2014, the Gauteng Rural Development Plan 2014, and the Gauteng City-Region Integrated Infrastructure Master Plan 2030. It also takes into account the United Nations Sustainable Development Goals 2030 and New Urban Agenda 2016, the African Urban Agenda 2015, the National Development Plan 2030, the Integrated Urban Development Framework 2016, the Strategic Infrastructure Projects 2013, the Neighbourhood Development Partnership Programme, the Comprehensive Rural Development Programme and the Pro-active Land Acquisition Strategy.

Provincial SDFs must be consistent with the national SDF and municipal SDFs. Where a provincial SDF is inconsistent with a municipal SDF, the premier must, in accordance with the Intergovernmental Relations Framework Act (IGRFA) (Act 13 of 2005), take all necessary steps to ensure consistency.



Source: Gauteng Spatial Development Framework 2030: 2016

Essentially, the framework seeks to (i) direct, guide, focus and (ii) align, coordinate and harmonise all public infrastructure investments and development spending in the province, in accordance with a spatial development logic built on ensuring rapid, sustainable and inclusive provincial economic growth, township redevelopment, and decisive spatial transformation.



This underlying provincial spatial development logic has five aspects:

1. Maintaining and deepening the economic productive capacity of those areas where a large part of the provincial economy is concentrated.
2. Pursuing densification, diversification and integration in those areas where a significant part of the provincial economy is concentrated, where the State owns significant tracts of land, and land prices are not as prohibitive as in the economic core areas.
3. Focusing township redevelopment, including nodal and corridor development, in townships where most people live, that are most accessible and connected via public transport to the economic core areas and similar township areas, and that show evidence of the localised spatial forces necessary for growth and concentrations of diverse economic activities.
4. Enhancing public transport connections with townships where fewer people live and hence economic accessibility is poorer, while at the same time focusing on skills development and supporting local economic development initiatives.
5. Protecting those parts of the province that provide key environmental support services, are environmentally sensitive, have been formally demarcated as conservation areas, have high agricultural potential, or are used as or have the potential for eco-tourism and rural economic activities.

### Spatial Development Guidelines

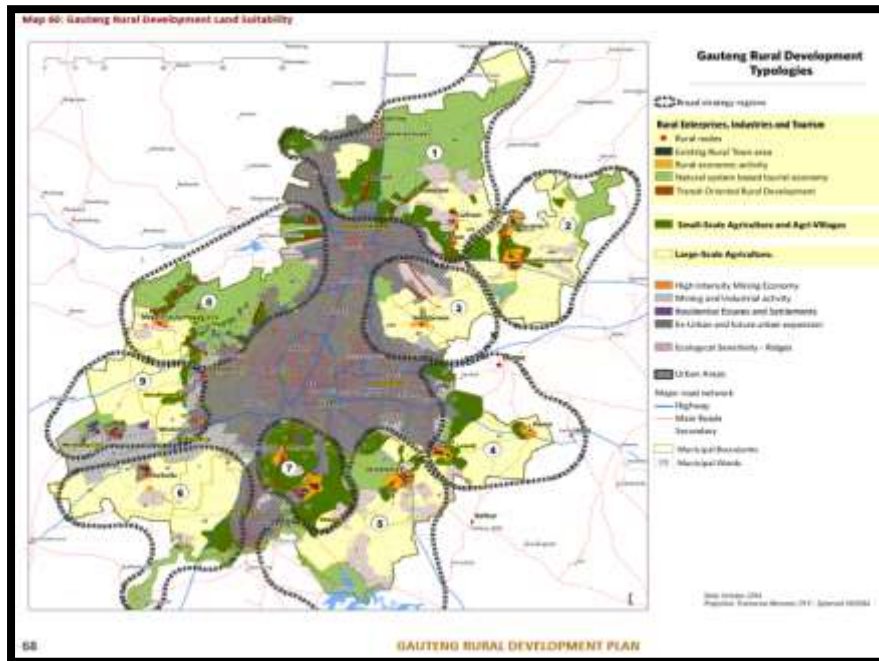
These strategic spatial development guidelines, which support the four provincial spatial development strategies, are meant for use by all three spheres of government, but are primarily intended for use by municipalities when undertaking their mandated spatial planning activities and when making decisions on land development applications, infrastructure investments and development spending. The guidelines are presented in tabular format.

Focus densification and intensification actions in areas that are close to and/or well connected to primary and secondary municipal nodes in the province.

- **Prioritise densification along existing BRT** routes rather than planned future BRT routes, as construction often takes longer than anticipated.

- Develop future Gautrain stations as **integrated, mixed-use, high-density** and accessible urban nodes.
- Enable strategic emerging nodal developments in townships, to build the polycentric provincial network.
- Enable **higher density land developments and housing typologies in nodes**, with the aim of creating integrated, accessible, permeable, mixed-use and high-intensity environments.
- **Discourage new low-density residential developments in and around core economic areas**, as well as the spatial fragmentation resulting from private estate development.
- Redirect housing subsidies towards the development of **affordable housing close to employment and public transport**.

#### 2.1.4 THE GAUTENG RURAL DEVELOPMENT PLAN: 2014



The Gauteng Rural Development Plan (GRDP), as prepared for Gauteng by the national DRDLR, is the first integrated, strategic plan prepared for rural areas in the province. It acknowledges that rural regions, like their urban counterparts, have intrinsic qualities and value, and function as integrated wholes, and so need to be managed as such. The GRDP emphasises that inappropriate development and the encroachment of urban areas can destroy these regions, and that rural areas should be protected and developed with care. The plan proposes the development of nine rural regions in Gauteng that are, in many cases, connected to parts of neighbouring provinces.

The GRDP developed the following spatial development concepts to guide development in rural areas:

- The 'rural capital web' provides (like its urban counterpart) an indication of how and in which sequence public and private sector investment would ideally be undertaken in rural areas.
- 'Transit-oriented rural development' entails optimising the interaction between transport (notably public transport) and land use in stations and on properties adjacent to or adjoining such routes.
- 'Small-scale agriculture and agri-villages' are rural settlements where inhabitants have access to enough land to be able to undertake small-scale agricultural/ farming activities.
- 'Large-scale agriculture' is land explicitly for agriculture/farming. Settlements take the form of houses/homesteads and associated structures for the farmers (who may be farming in a single or a cooperative arrangement) and their families.
- 'Rural enterprises, industries and tourism' refers to land on which a diverse range of economic activities takes place. These activities are based on the unique rural attributes/qualities of the land, nearby farming activities and proximity to towns and larger urban areas for markets and customers (or tourists).



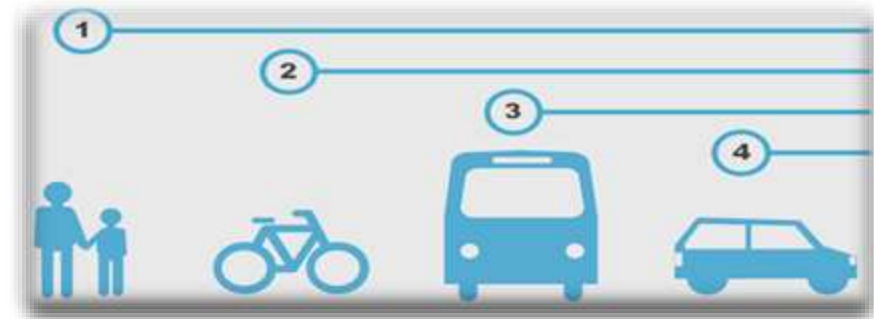
### 2.1.5 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions” have been identified of which the following two clusters relate to BRT corridor planning (p 23):

- Land Use Development
  - Subsidised housing provision within urban core areas
  - Land use densification in support of public transport
- Strategic Public Transport Network
  - Mainstreaming non-motorised transport (NMT)
  - Reinforcing passenger rail network as the system’s backbone
  - Extending the integrated rapid and road-based public transport networks

Other important principles are the promotion of NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems and redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (p 71).

### Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes



Source: Gauteng 25 Year integrated Transport Master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. It also proposes developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities (p 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;
- Medium Density: 30 to 79 units per hectare within 1 kilometre from the remaining provincial.

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identify priority nodes/areas along these corridors and **compile**

**detailed Precinct Plans** for these areas (p 32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

#### 2.1.6 THE SPATIAL VISION OF THE CITY

The RSDF will focus on spatial transformation, Economic transformation and Ecological transformation as envisioned in the Roadmap towards Tshwane 2030. The approved IDP contain the strategic context within which the 2017/21 IDP has been developed and contain five strategic pillars which is guiding the focus for the 5 year term.

The five pillars as indicated in the Roadmap towards Tshwane 2030 can be summarised as follows:

1. A City that facilitates economic growth and job creation
2. **A City that cares for residents and promotes inclusivity**
3. A City that delivers excellent services and protects the environment
4. A City that keeps residents safe
5. A City that is open, honest and responsive

**Pillar 2: A City that cares for residents and promotes inclusivity** is specifically related to spatial planning and the 2018 RSDF.

The City of Tshwane is committed to redressing historical injustices and addressing the neglect of poorer communities by the previous administration.

#### Priority 8: Building integrated communities

Many communities in Tshwane are not integrated and are still homogeneous and separate. To counter apartheid era spatial planning, we will seek to better integrate communities and bring opportunities to all residents of Tshwane as equal citizens.

All residents should feel confident and of equal importance when engaging with the City and the broader local community. Thus the City is striving to create integrated communities where people of all walks of life can live and work together.

The City will achieve this by:

#### Action 1: Creating spaces and housing opportunities that bring people together

- Ensuring that **urban planning and zoning densify** and better integrate Tshwane as well as providing adequate public spaces;
- Encouraging and **facilitating mixed-use and mixed-income housing** developments;
- **Pursuing densification** in appropriate areas along public transport routes;
- Establishing and maintaining **inclusive community amenities** such as childcare facilities, municipal halls, parks, recreational areas, cemeteries, sports grounds, markets and libraries;
- Connecting people through safe, reliable and affordable **public transport**; and
- Prioritising safety and cleanliness to attract people and businesses back into the city centre as part of inner-city rejuvenation.



### 2.1.7 INTEGRATED DEVELOPMENT PLAN REVISION 2017/2021: (APPROVED 25 MAY 2017)

The 2017/2017 IDP is considered an important planning and management tool to give effect to the City's Vision and respond to development needs.

Roadmap towards Tshwane 2030 as indicated in the IDP 2017/2021 **focuses on Spatial transformation, Economic transformation and Ecological transformation as investigated in the Roadmap towards Tshwane 2030.**

**The Regional Spatial Development Frameworks (RSDF) are aimed at dealing with the following detail spatial related aspects, focussing however, on a regional level as indicated in the IDP 2017/ 2021.**

- Provide spatial direction for development; (Spatial transformation)
- Provide an appropriate and integrated regional spatial framework for sustainable development; (Economic transformation).
- Ensure directed public investment, through the identification of geographic areas where intervention is necessary; (Economic transformation).
- Guide local development, in relation to urban movement and activity systems, in order to realise the vision of sustainability and urbanity; (Ecological Transformation).
- Inform developers and the general public of the location, structure and form of development that will most likely be approved and the sustainable urban planning and development guidelines to be followed; (Spatial transformation)

#### **The Urban Network Strategy Spatial Structure Directive: Urban Network Typology as per IDP /2017/2021**

The Urban Network Strategy (UNS) is a national policy directive that informs spatial planning at both a provincial and regional scale and forms the basis of the Built Environment Performance Plan (BEPP) by providing a spatial

approach by which to target investment. The UNS typologies comprises of the following elements:

The **Central Business District (CBD)**, an area for focused regeneration and management;

**Urban hubs**, including both traditional and emerging centres of economic activity, within which mixed used development is to be encouraged and managed;

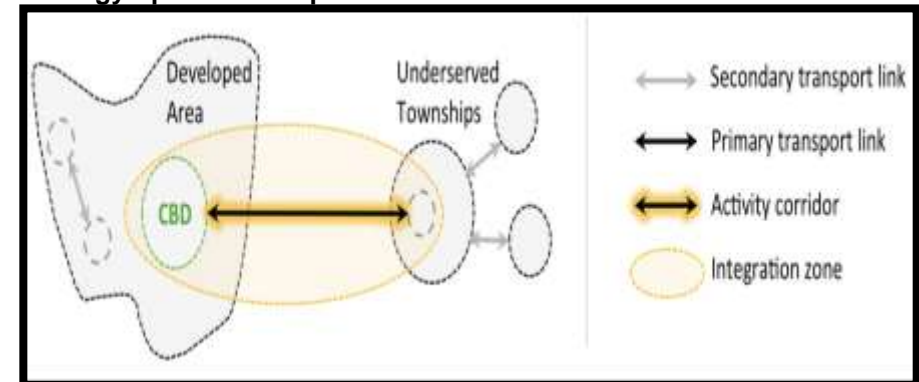
**Smaller nodes**, within which mixed-use development is similarly to be promoted;

**Activity corridors**, which connect the urban hubs and the CBD, along which rapid public transport and integrated high-density land development is to be promoted;

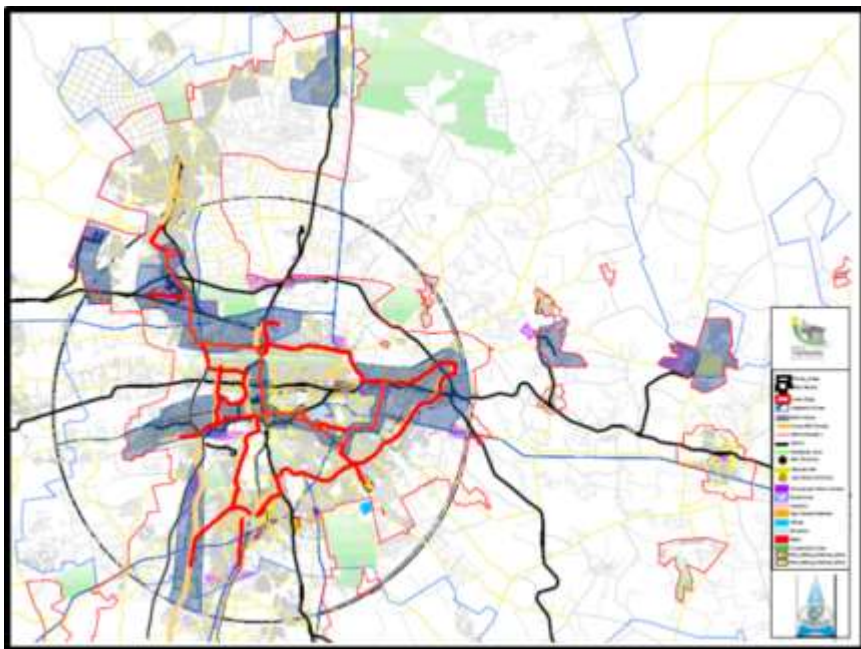
**Secondary transport** linkages that are to ensure the spatial integration of smaller nodes by connecting them to urban hubs; and

**Integration zones**, which represent a collective of these typologies and form the prioritised spatial focus areas for coordinated public intervention.

#### **Strategy Spatial Concept**



Source: BEPP 2017/2018



Source: City Planning Department

The Priority Nodes and Corridors for Spatial Transformation capex analysis was undertaken by means of the Tshwane Capital Planning system (CaPS), which allows for the spatial referencing of capital projects. The 2017/18 capital budget analysis of the Priority Nodes and Corridors for Spatial Transformation, is shown in the figure above.

### 2.1.8 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK (2012)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development. It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and
- Focussed concentration of high-density residential land uses and intensification of non- residential land uses in nodes, around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

### 2.1.9 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of the strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station

- **Reduced parking ratios** for private cars.

#### 2.1.10 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrate land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CITP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

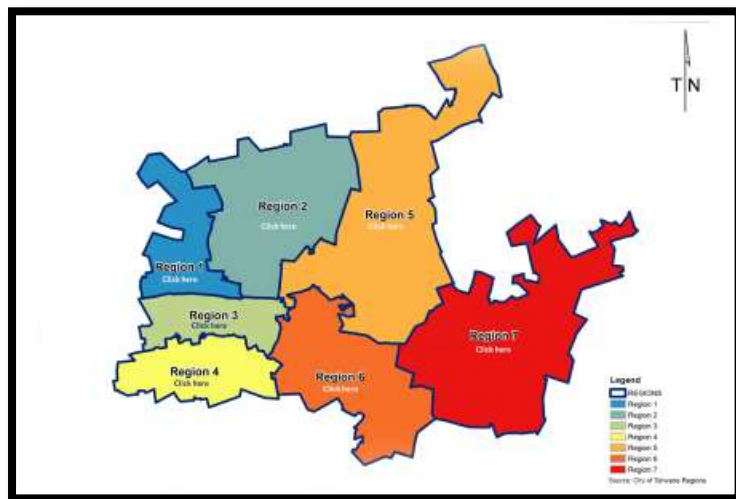
- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport**;
  - Provide public transport access to all residents, including tourists and visitors
  - **Land-use to support and promote public transport** e.g. linking economic nodes with public transport, **increase land-use densities along routes** and around modal transfer facilities.
- III. Integrated transport:
  - Integration of land-use with transport, e.g. **densification along public transport corridors**;
  - Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.
- IV. Transport in support of a Smart City:
  - Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
  - Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
  - Provide modern public transport modes e.g. BRT, LRT, Gautrain.
- V. People-friendly:
  - **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
  - Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling**.

## 2.2 THE CITY STRUCTURE

The CoT covers an area of 6 260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three former Metsweding Municipalities (Nokeng tsa Taemane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south-east of the previous City of Tshwane. The City of Tshwane (CoT), located within the Gauteng Province, is bordered by the provinces of Limpopo to the north, Mpumalanga to the east, the Ekurhuleni and City of Johannesburg Metropolitan Municipalities to the south and North West province to the west.

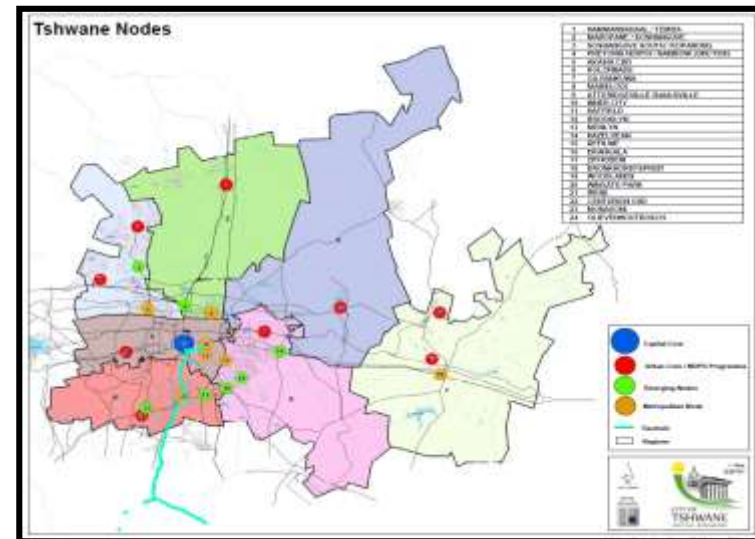
With Gauteng being a total area of 18 178 km<sup>2</sup>, the City of Tshwane, at 6 260 km<sup>2</sup>, covers just more than a third of the surface area of the entire province.

Tshwane is divided into 7 planning regions, each with their own unique characteristics.



### 2.2.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and service (as explained by the smart growth concept). The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.







The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between three nodal typologies i.e.

1. Metropolitan Nodes/TOD - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth

management strategy. Menlyn, Hatfield, Brooklyn and Centurion City are inter alia presented as Metropolitan Nodes.

2. Urban Cores - former township area were created as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstances are clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan Nodes. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument for 'township renewal'. Saulsville, Zithobeni, Ekangala and Refilwe are inter alia presented as Urban Cores.

3. Emerging nodes - over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as an Emerging Node.



## 2.2.2 SPECIALISED ACTIVITY AREAS

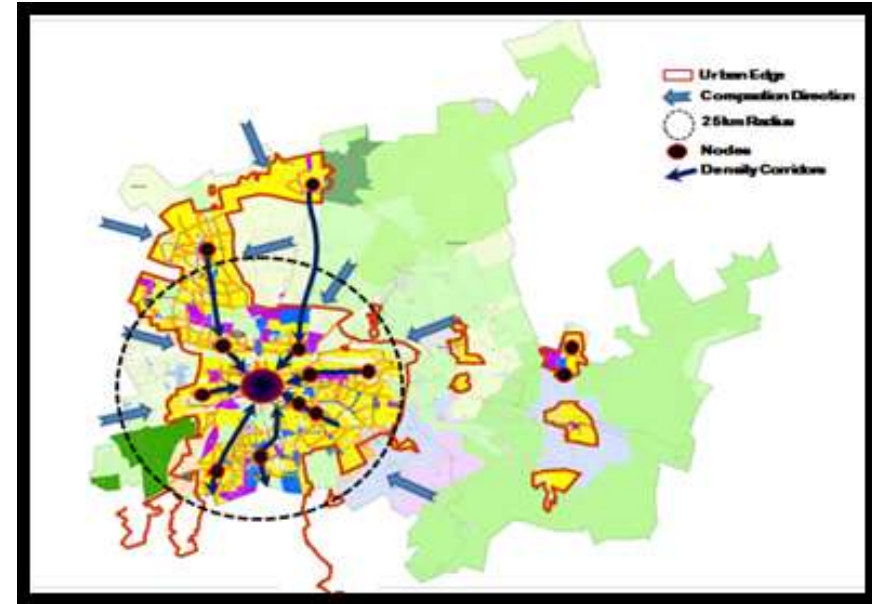
There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to “connectivity” in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng’s GGP. The Blue IQ initiative focuses on five growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation

## 2.2 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development in such a way that resources and services are provided which meet the demands of the affected population over a long-term period.



The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at a level relative to their nodal status.

The costs of urban sprawl and associated low densities are undeniable. Due to limitations on the provision of new bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).
- Low-density zones

Densification and infill are sound urban development principles to pursue, but it should be noted that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification implies. Densification should therefore be approached holistically striving to also support a better public transportation system as a dual development process. Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).

These delineations extend from the containment of areas where development is permissible to areas where little or no development is permissible - such as environmentally sensitive or conservation areas.

### **2.3.1 URBAN EDGE**

One tool for providing delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge, thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### **2.3.2 TSHWANE RETAIL STRATEGY**

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlie the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.

- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contribute to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and located in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces, etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics, etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 2.3.3 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban cores, albeit not to the same extent as in the metropolitan nodes which have a long history of favourable development policies.

Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristics. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices. But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

The table below sets out the various urban cores identified within the City of Tshwane:

<b>Township/Catchment Area</b>	<b>Node/Precinct</b>
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoutbosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekangala	11. To be determined
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

## 2.4 MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. The main characteristics of current movement patterns within the City of Tshwane are the following:

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

### 2.4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns/systems and urban development. It is necessary that land-use planning is done in a way that supports public transport, but it is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as a mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

#### Spatial challenges identified at Metropolitan Scale

Tshwane is a very large and dispersed metropolis featuring numerous challenging characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space or geographical barriers such as steep ridges.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

## Settlement form

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become **over-dependant on the private car**, which the vast majority cannot afford;
- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

## Future Spatial Development of Tshwane

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed used activity spines and specialised activity zones.

## The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation issue and is primarily concerned with the provision of roads, infrastructure and vehicles. However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban functionality an urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

## Mobility / Transport Corridors

Within the Tshwane context mobility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa;
- To and from the Gauteng City Region;
- Movement within the Tshwane Metropolitan Area.

One of the primary reasons for the existence of this type of corridor within Tshwane is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.





### Activity Corridors

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

### TOD

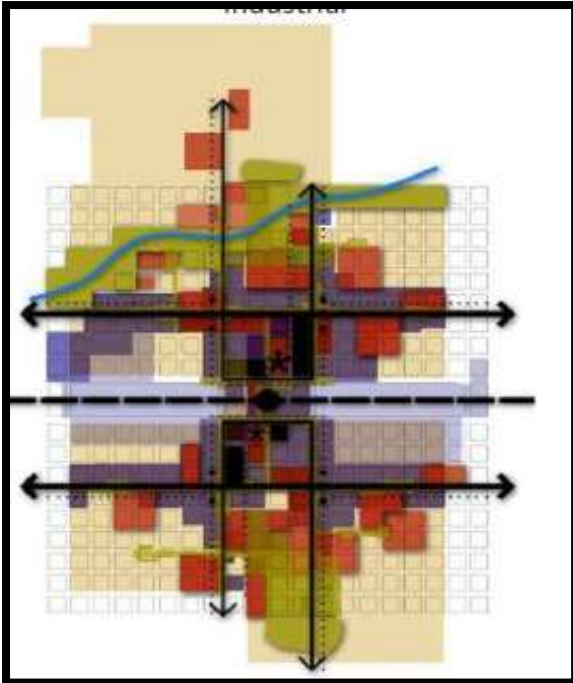
The Institute for Transportation and Development Policy developed The Transport Orientated Development Standard, built on the experience of

many organizations around the world. It addresses development that maximizes the benefits of public transit. TOD implies high quality, thoughtful planning and design of land use and built form characteristics to support, facilitate and prioritize not only the use of public transport, but the most basic modes of transport, walking and cycling. Based on research on sustainable communities and transport, undertaken during the development of the Principles of Transportation in Urban Life the key principles for guiding the development of TODs are the following.

- Develop TOD's that promote walking [walk]
- Prioritize non-motorized transport networks within an to TOD's [cycle]
- Create dense networks of streets and paths within the TOD.[connect]
- Locate development near high-quality public transport [transit]
- Optimize density and transit capacity [densify]
- Create regions with short commutes [compact]
- Increase mobility by regulating parking and road use
- Reduce car dependence within TOD's (National Development Plan, GSDF, CIPT, Principle).
- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses
- Encourage development characteristics that spread economic impact (Spluma, Objective, promote economic and social inclusion).

Three TOD's have been earmarked in Region 3 namely :

- **SAULSVILLE STATION**
- **PRETORIA STATION**
- **HATFIELD STATION**



Source: National Treasury: Urban Hub Design Toolkit: 2013

#### 2.4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE

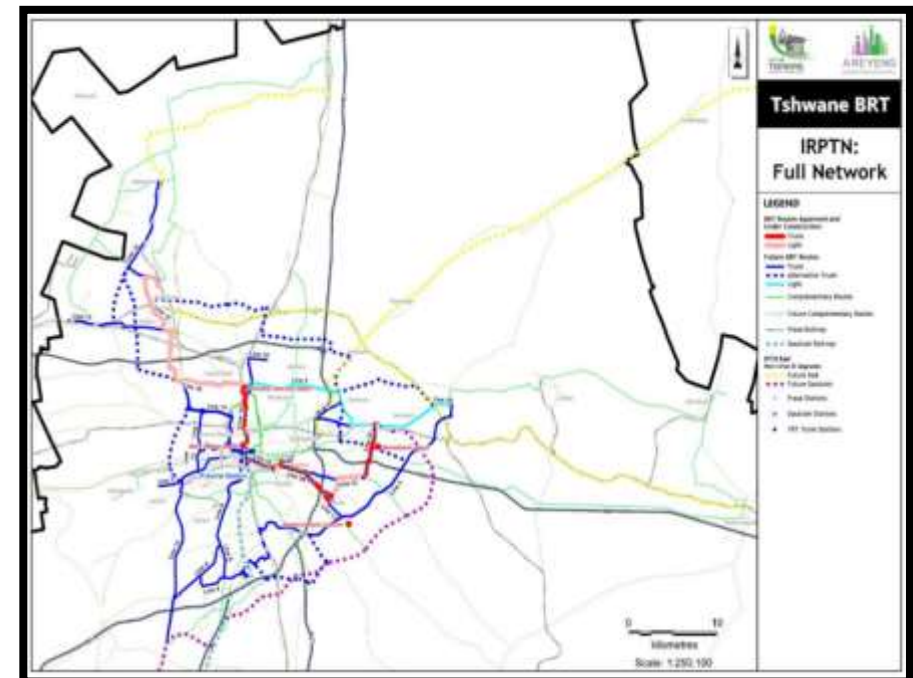
Highways form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These highways include the N1, the R21, the proposed western bypass and the Bakwena Platinum (N4) Highway.

All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.



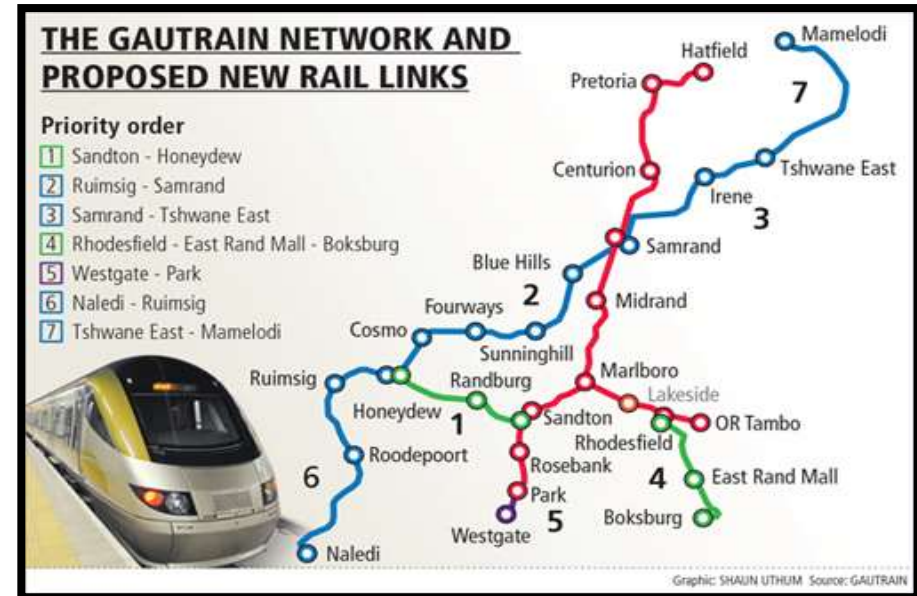
The IRPTN network, in particular along the TRT network sections, have undergone some planning changes since the IRPTN study of 2014. The changes in the proposed TRT route alignment are as follows:

Line 3 in the Atteridgeville area is shortened and ends in the centre of Atteridgeville.

Two complementary routes are introduced between Rainbow Junction and the Pretoria CBD, one each along Steve Biko Road and Es'kia Mphahlele Drive. This is intended to provide additional capacity to the north-south movement that the trunk route along Paul Kruger Road services.

The Gautrain links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city are supported and will improve the general movement within the city.

The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spent on travelling and a more convenient lifestyle is offered.



Spatially efficient densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are already over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Attention must be given to the establishment of separate bicycle lanes and pedestrian walkways to allow for safe movement of cyclists and pedestrians. If these facilities are provided, it will encourage NMT and alleviate traffic problems.



With regard to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily to affordability. Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is causing a surge in traffic volumes and congestion. Public transport has not been providing an attractive commuting alternative for those who can afford private travel options.

PRASA is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first

phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transport-orientated developments.



Key characteristics of transport-orientated development include:

- a rapid and frequent transit service



- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 800 metres of a transit station
- reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

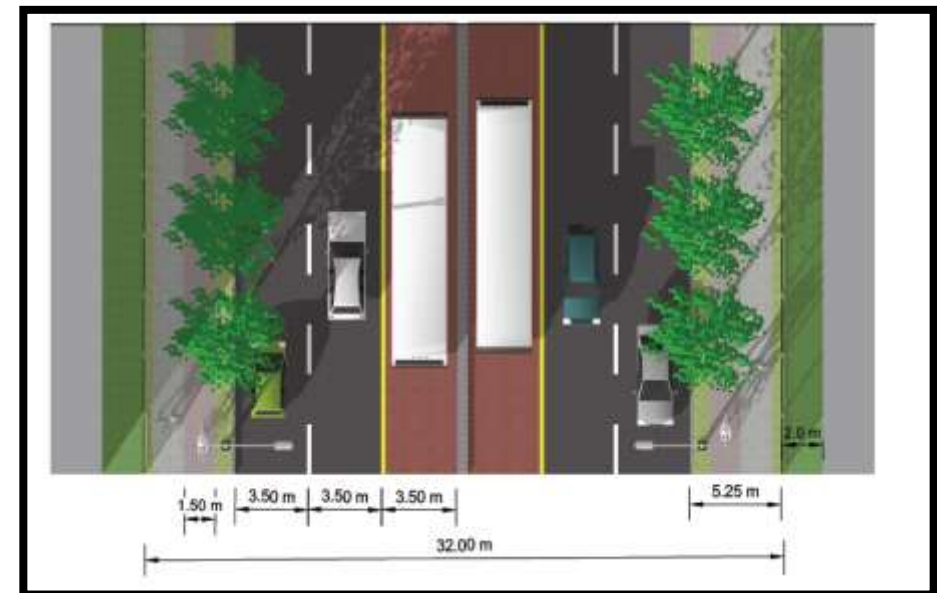
The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.

## Livable Streets Concept

Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

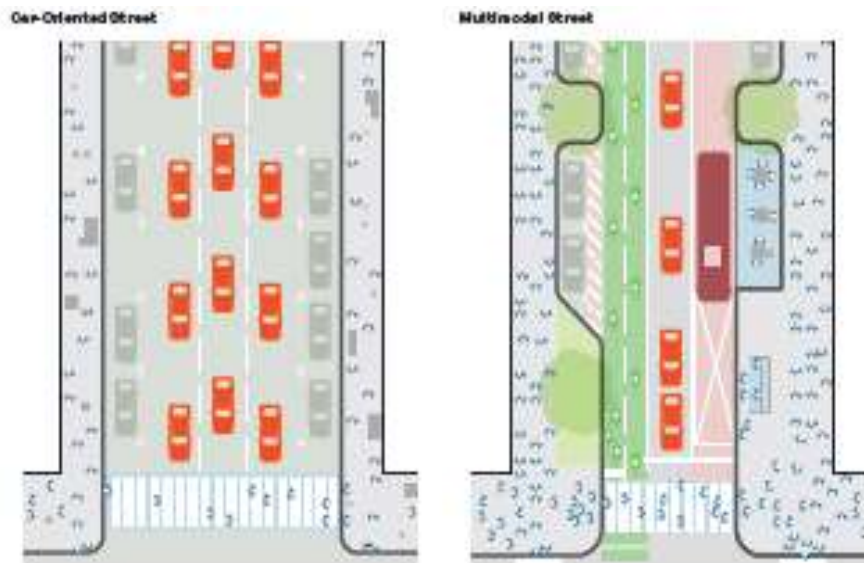
The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Liveable and Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system. In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.



Source: City of Tshwane, City Planning and Development Department

The design principles of complete streets are –

- traffic-calming measures to lower the speed of vehicles;
- a road diet to reduce the number of lanes for vehicles and on-street parking;
- landscaping and streetscaping elements such as trees and benches to create a pedestrian-friendly environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- accommodation of public transport such as the bus rapid transit.



Total capacity: 12,300 people/h



Total capacity: 30,100 people/h\*

The capacity of car-oriented streets and multimodal streets. These two diagrams illustrate the potential capacity of the same street space when designed in two different ways. In the first example, the majority of the space is allocated to personal motor vehicles, either moving or parked. Sidewalks accommodate utility poles, street light poles and street furniture narrowing the clear path to less than 3 m, which reduces its capacity.

In the multimodal street, the capacity of the street is increased by a more balanced allocation of space between the modes. This redistribution of space allows for a variety of non-mobility activities such as seating and resting areas, bus stops, as well as trees, planting and other green infrastructure strategies. The illustrations show the capacity for a 3-m wide lane (or equivalent width) by different mode at peak conditions with normal operations.

Source: Global Street Design Guide

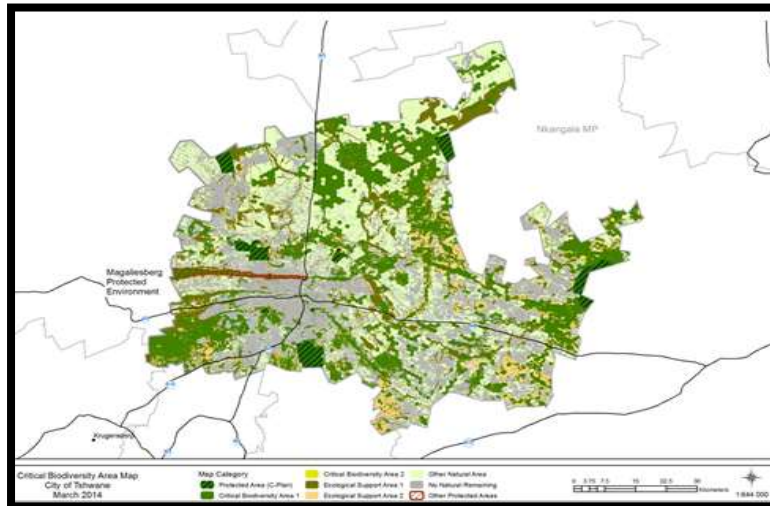
## 2.5 ENVIRONMENTAL STRUCTURING CONCEPT

### 2.5.1 HERITAGE AND CULTURAL SITES

Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

## 2.5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDP. The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.



The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems.

The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning

concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organisation.

An open space network not only contains the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

Open Spaces inter alia include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Recreational and tourism related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The COT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaat Dam, which is situated to the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. Both Roodeplaat Dam and Bronkhorstspuit Dam are under immense pressure from high income residential enclaves. Increased development pressure could cause serious degradation of the natural areas as limited environmental management guidelines exist. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but are not limited to the following: game farms, nurseries and bird watching to mention but a few.

It must be emphasised that an open space network does not only focus on 'green' spaces, but also on more urban or 'brown' and 'grey' spaces, as well as on spaces that contribute to place-making within the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future. The protection of ridges as habitats of red data and endemic species is of utmost importance.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guaranteeing a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land-uses or developments inside or adjacent to the open space network. The full potential of the network can therefore be exploited for unique projects which otherwise would not be feasible.

Such developments include ecological estates, where the primary focus is the conservation of the natural resource/open space. Conservation in this

sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following:

- Dwelling-units shall be grouped together in as few clusters as possible;
- A strategic Environmental Assessment shall be done to determine the open space, the position of the clusters and the position of ancillary uses such as roads;
- Conditions shall be set for the design, character and overall relationship of the estate with its environment;
- Conservation conditions shall be strictly adhered to.

**Watercourses** - All watercourses and dams, with the associated open space to protect their floodplains in terms of the *Tshwane Open Space Framework (TOSF)*, are applicable in terms of the RSDF in order to control development, ensure environmental compliance and the unhindered flow of flood/storm water during floods. Flood lines usually form the borders of open space along watercourses.

Tshwane has more than 5,000km watercourses. Watercourse centre lines for all watercourses in Tshwane have been delineated and spatial and attribute data captured.

Flood lines have not yet been determined for all watercourses within Tshwane, but the 1-in-50-year and 1-in-100-year flood lines have been determined for most watercourses within urban areas.

Where flood lines have not been determined *indicative* flood lines can be used for urban planning purposes. *Indicative* flood lines are based on flood peak data obtained from Tshwane's hydrological model and contours derived from aerial photography and *Lidar* survey data. Because the *indicative* flood lines are calculated from general contours that do not take any site-specific features or drainage structures like bridges into account, the flood lines are called '*indicative*'. The 1-in-100-year indicative flood lines have been determined for ALL watercourses within Tshwane.



### 2.5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterised as an urbanised Metropolitan area with only a smaller sector known and characterised as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked for Future Urban Development. These Future Urban Development Areas were designated in terms of each Regional Spatial Development Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane, now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order to protect the environmentally sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land-use development in the less sensitive areas.

#### Background

The following source documents were used as building blocks for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan (2016)

All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, protected areas, Game Reserves and Nature Reserves were used

- The existing and future provision of essential services

Information with regard to the provision and capacity of water (reservoirs), sanitation (waste water plants), roads, storm-water, electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The Gauteng Spatial Development Framework, 2030
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

#### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is no longer part of the Provincial Planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic services can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development have been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

#### Vision

The Tshwane Rural Component Vision will:

- Promote an effective response to rural poverty;
- Ensure food security by maximizing the use and management of natural and other resources;
- Create vibrant, equitable and sustainable rural communities;
- Contribute towards the redistribution and sustainable use of all potential agricultural land;

- Support rural economies, based on agriculture and where possible on mining, tourism and agro-processing;
- Create employment and business opportunities for the existing rural population;
- Aims to prevent natural disasters like erosion, pollution and other detrimental effects on natural resources;
- Formalize residential settlements according to the Rural Component Framework;
- Promote accessibility to community facilities, work opportunities and housing for all;
- Maintain acceptable standards for roads and other modes of transport;
- Provide public transport services for the more densely populated rural areas;
- Identify multi-purpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations;
- Attend to the matter of ownership and tenants' rights, especially in areas where tribal land ownership exists.

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exist that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detailed proposals for the Rural component are therefore dealt with in each Regional context. Various Rural land-use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component maps for the various Regions. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use / Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major Rural Roads
- Existing Infrastructure for essential services
- Future Urban areas
- Management zones

- Agricultural areas
- Agricultural High Potential areas
- Sensitive protected areas (combination of C-Plan protected areas, including Ridges and Streams, Natural resources, Fauna and Flora protected places / areas)
- Heritage and Cultural protected areas
- Tourism potential places / areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

### Conclusion

The main principle of rural development is to increase accessibility of rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide the basics for survival to all existing settlements but make no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

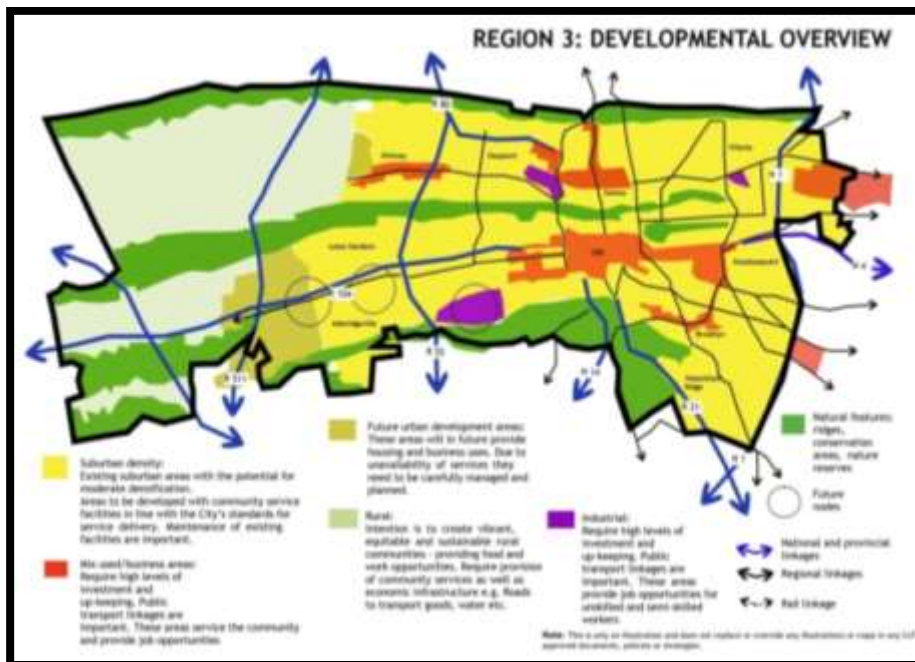
The Smart growth principle will furthermore be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth within the city limits;
- Compaction of the city through infill and densification;
- Improvement of the utilisation of existing infrastructure, services and facilities;
- Preservation of the rural environment and landscape;
- Protection of agricultural land, especially high potential agricultural land;
- Preservation of the environments that promote tourism, recreation and nature conservation;
- Urban regeneration by adopting an inward approach; and
- Protecting cultural and tourism assets.

## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

Region 3 is bordered by the Magaliesberg Mountain range to the north and the N1 freeway to the east, including a small part of East Lynne and Silverton. The region includes the CBD of Tshwane, the Brooklyn and Hatfield metropolitan nodes as well as the western area of Tshwane (commonly known as Pretoria West). To the south-west, the region borders on the jurisdiction of Mogale City and to the west is Madibeng in North West Province.



The region is accessible from a regional point of view as it is served by both north-south and east-west higher order roads, linking it to the rest of Gauteng and the broader region. The major access routes are:

- The Ben Schoeman freeway which enters the Inner City from the south, linking it to Centurion, Midrand and Johannesburg further south;
- The R21 Freeway also entering the Inner City from the south and enabling access to OR Tambo International Airport and the Ekurhuleni Metro (East Rand);
- The N1 eastern bypass runs mainly on the eastern boundary of the region and provides access to the north of Gauteng and Limpopo;
- The N4 Freeway running through the east of the City to the Inner City, giving access to Mpumalanga, as well as through the north of the city to the N1, giving access to North West Province;
- The partly constructed PWV 9 or R80 western bypass, giving access to Regions 1 and 2 to the north of the Inner City;
- The former N4 (PWV1) freeway, which links the CBD of Tshwane with the southern part of Madibeng in North West and runs east-west through the west of the region. This road forms a dominant central mobility spine within the region; and
- WF Nkomo Street (running parallel to the former N4) and Helen Joseph (formerly Church) Street, linking the regions on the western and eastern parts of the city through the CBD.

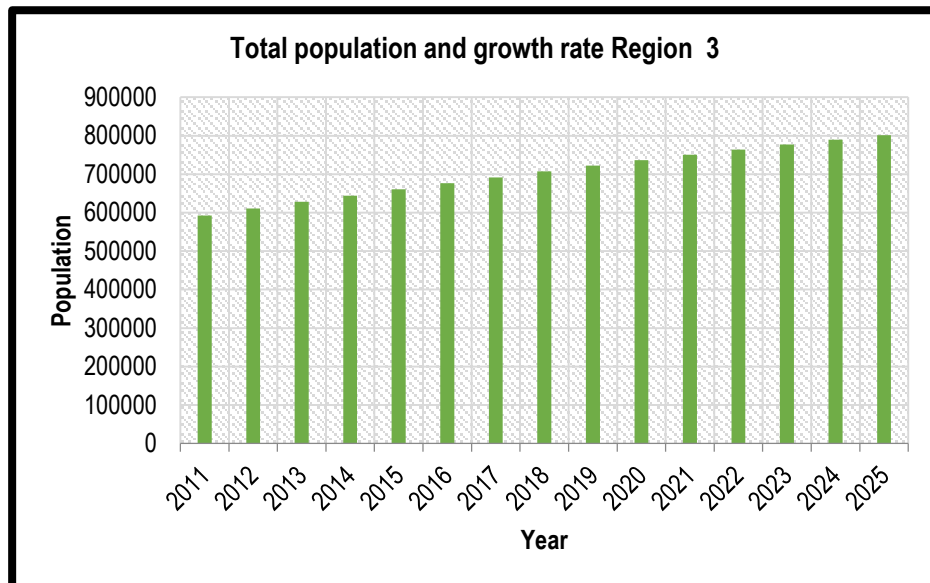
### 3.2 AREA

Region 3 is in extent 376 km<sup>2</sup> (three hundred and seventy six square kilometres). The eastern two-thirds of the region are mostly urbanized whereas the western third is mostly rural. Large open spaces are also found in the south at the Fountains Valley and along the adjacent ridges.

### 3.3 DEMOGRAPHIC INFORMATION

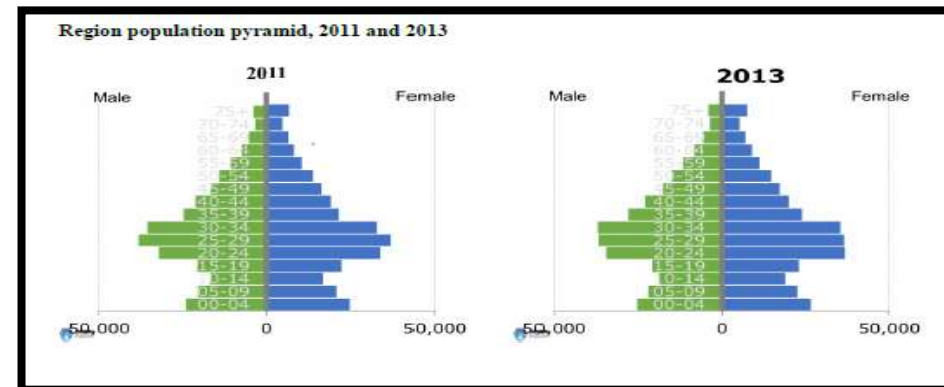
An estimated population figure for this area suggests 707056 people in 2018. (IHS Global Insight & City Planning Department). The average annual growth rate for Region 3 is about 2.2%.

#### Total population and growth rate, 2011-2025



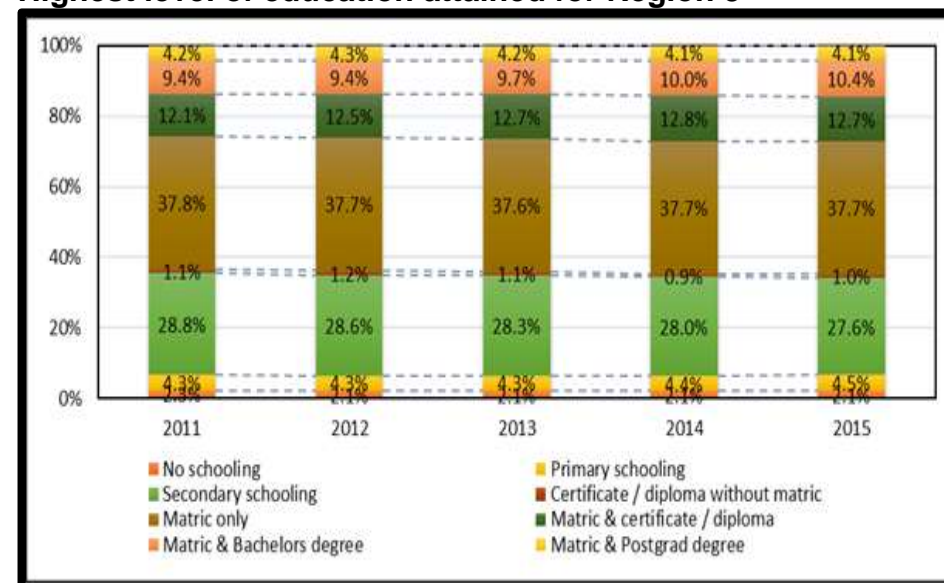
Source: IHS Global Insight & City Planning Department

The graph above indicates the total population in Region 3 and the associated percentage growth rate from 2011 to 2013. As indicated in the figure, the population in Region 3 has been steadily increasing in nominal terms; however, the percentage growth has been subjected to minor volatilities. In 2011, the total population was approximately 592 827 and grew to 7077056 in 2018, representing 6 percent growth over the period. The population growth is growing at a declining rate, in 2011 the population growth rate was at 3,1 percent and this has declined to 2.2 percent in 2018.



The above graphs indicate the 2011 and 2013 population pyramid for Region 3. From the figure, it can be noted that there is a youth bulge in Region 3's population i.e. it can be observed that a significant portion of Region 3's population is younger than 35 (63 percent).

#### Highest level of education attained for Region 3

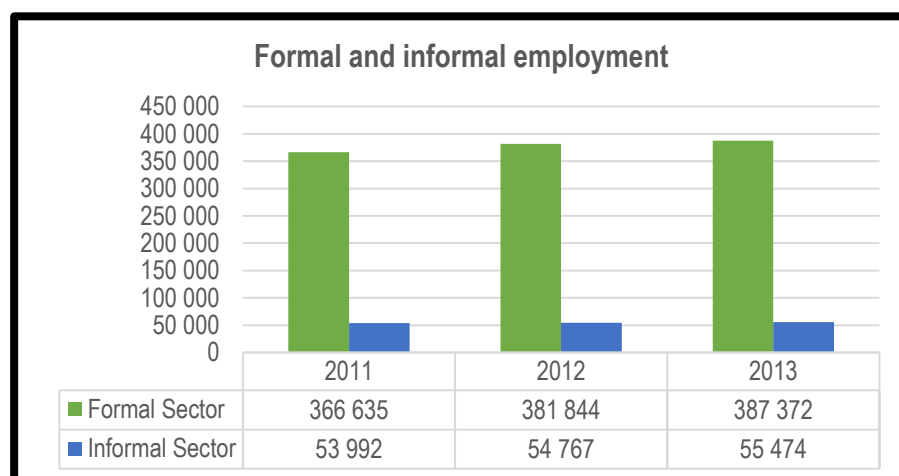


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015



The above figure indicates how the educational profile of the population that is 20 years or older in Region 3 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of the people (20 years +) in Region 3 with no schooling has declined slightly from 2.3 percent in 2011 to 2.1 percent, whilst the percentage of people with at least matric have marginally decreased from 37.8 percent in 2011 to 37.7 percent in 2015. The percentage of people (20 years +) in Region 3 with certificates or a diploma without matric has since 2011 accounted the least, that is, 1.1 percent in 2011 and declined to 1.0 percent in 2015.

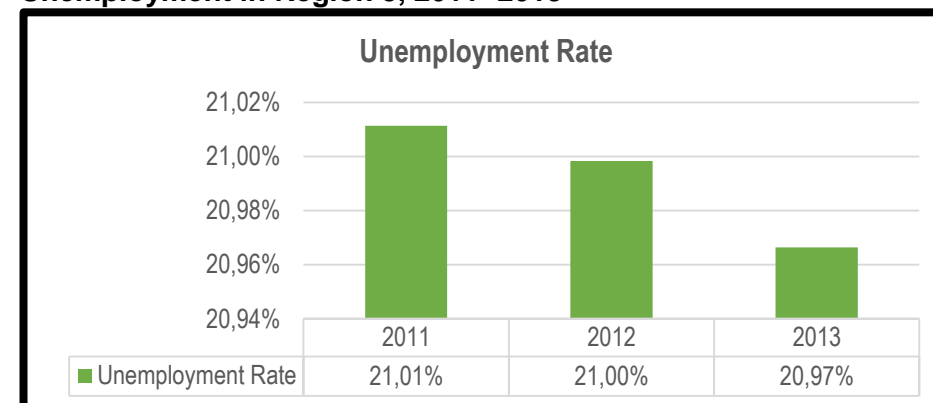
### Employment in Region 3 by sector (formal and informal), 2011 -2013



Source: IHS Global Insight

From the above graph, indications are that the total employment in Region 3 has been steadily increasing over the 2011-2013 period as disaggregated by sector (formal or informal). As indicated in the table, in 2011, the total number of individuals employed in the region were approximately 420 627, this have increased to 436 611 in 2013. As one would expect, the largest composition of this employment is formal employment which was 366 635 in 2011 and this has increased to 387 372 in 2013, on the other hand, informal sector employment has increased from 53 992 in 2011 to 55 474 in 2013.

### Unemployment in Region 3, 2011 -2013



Source: IHS Global Insight

The above graph indicates the unemployment rate in Region 3. It can be noted from the figure that the unemployment rate in Region 3 has been relatively unstable, however, over the 2011 – 2013 period, Region 3 recorded improvements. In 2011, the unemployment rate was 21.01 percent, this slightly improved to 20.97 percent in 2013.

### SERVICE DELIVERY

Access to service delivery is a key government responsibility. This section focuses on the dwelling, and accompanying services available to Tshwane residents.

#### Share of households occupying formal dwellings

Year	Share of household occupying formal dwellings	Share of households with Hygienic toilets (%)	Share of households with piped water at or above RDP-level (%)	Share of households with electrical connections (%)
2011	80.9%	90.3%	91.7%	87.4%
2012	81.4%	90.6%	92.0%	86.8%
2013	81.7%	90.7%	91.7%	85.9%

Source: IHS Global Insight

The above table reflect the share of households occupying formal dwellings, households with hygienic toilets and with piped water at or above RDP level in Region 3.

The Share of households occupying formal dwellings measure combines households occupying both formal and very formal dwelling-units and takes the total as a percentage of all households. A formal dwelling unit is a structure built according to approved plans. This category includes a house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere etc, but without running water or without a flush toilet within the dwelling. A very formal dwelling-unit is the same as a formal dwelling-unit but has both running water and flush toilets within the dwelling.

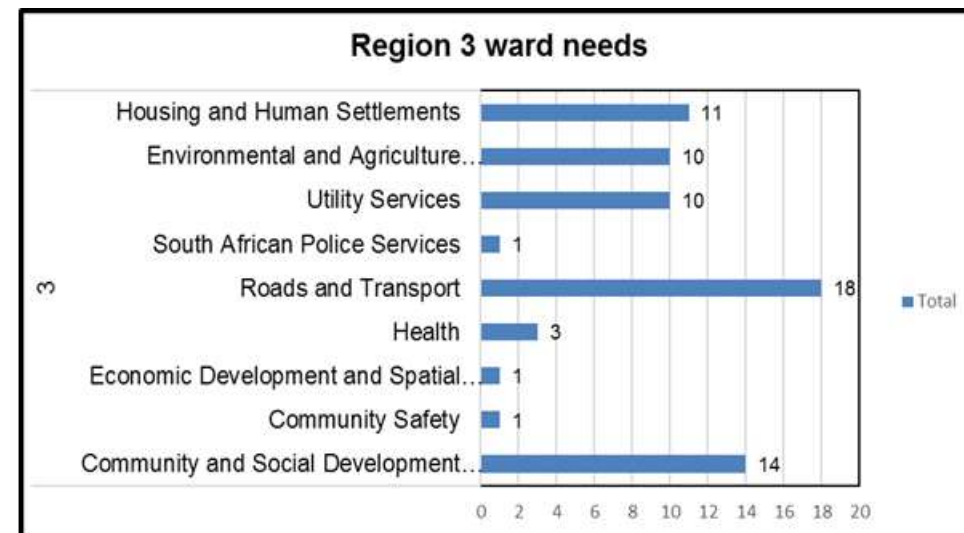
### 3.4 WARD PRIORITIES FOR 2015/16

During the public participation process in preparation for the 2016/17 IDP review; the three top priorities per ward in terms of community needs / service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery areas which were raised in Region 3 during the 2016/17 review process:

Dominant Service Delivery Areas	
Service Delivery Department	Community Issue / Concern
Roads and Transport	Traffic calming Road upgrades Pedestrian bridges
Sports and Recreational Services	Multi-purpose centres to be provided New sports facilities / maintenance of existing facilities Need for libraries / mobile libraries

The service delivery issues which were raised are therefore clustered into relevant City departments as per the graph below:



Source: IHS Global Insight

Most of the submissions received from Region 3 relate to the following:

- Road upgrades and storm water management;
- Clinics, libraries and sport and recreational facilities;
- Housing matters; and
- Water, sanitation and electricity

### 3.5 REGIONAL CHARACTERISTICS

The main characteristics of Region 3 are discussed below:

- The region is host to National Government offices and forms the administrative heart of government and as such has capital city status;
- The region is centrally located within the metropolitan area.
- It contains the CBD which is the largest job opportunity zone in the metro;
- In addition to the CBD it also contains two first order nodes i.e. Brooklyn and Hatfield;
- Two of the three Tshwane stations of the Gautrain is located in the region;
- The region contains major land marks, large institutions and a large number of hospitals;

- The south-eastern part of the region accommodates middle and higher income groups while most of the low income groups are located in the west;
- The region contains some of the oldest townships in the greater Tshwane indicating the heritage value of buildings and structures in the area;
- In this regard there are several landmarks and gateways which have conservation value;
- Atteridgeville in the west of the region is a low income area, including a large expanding informal settlement;
- The north-western part of the region (the so-called West Moot) is characterised by predominantly rural residential occupation and extensive land uses;
- The north-western section of the region also includes undeveloped agricultural land, various residential townships and the PPC cement manufacturer;
- The central section located directly to the north of the CBD includes the Capital Park Container Depot and a number of residential townships;
- The Crocodile River basin in the south-west of the region also contributes water to this region. This is an important natural resource which provides opportunities for tourism and recreational activities; and
- The underlying dolomite in the south of the region, the sensitive environmental areas and the ridges tend to direct and inform urban development.

### 3.6 STRUCTURING ELEMENTS

The main structuring elements of the region include:

- The region lies to the south of the Magaliesberg, which runs east-west through the city.
- The Apies River runs north-south through the region and forms the open space backbone of the region.
- There is an intricate open space network present in the region consisting of the following formative features:
  - The Magaliesberg Mountain range forming the northern boundary.
  - The Witwatersberg (Daspootrand) in the central part
  - The Schurveberg/Kwaggasrand/Langeberg Mountain, forming the southern boundary.

- There is poor north-south mobility linkage within the region due to the restrictive mountain ranges.
- Three landmark sites that contribute to the legibility of the city and form important vantage and viewpoints to the city are the Union Buildings, the Voortrekker Monument and the Freedom Park National Legacy site, which is the southern focal point of the Paul Kruger Street main axis.
- Paul Kruger and the former Church Street form the central core of two redevelopment corridors (Re Kgabisa Tshwane project). This project will focus redevelopment and intensive urban management in the Inner City. This is the principle axis of the historic grid layout of the Inner City.
- The proposed PWV 6 and 7 roads towards the west could provide further future linkage between Tshwane and Johannesburg. These routes will provide valuable thoroughfare over the mountain ranges.
- WF Nkomo Street (the former Church Street West) follows the former N4 and links the western parts of the region to the CBD.
- Helen Joseph/Stanza Bopape Street (the former Church Street East) links the region to the CBD and the eastern parts of the Metro.
- The N1 eastern bypass forms the eastern boundary of the region and is an important north-south running road providing further structure to the region.
- The PWV-9 western bypass provides good linkage to Akasia/Rosslyn and once this proposed route is completed it will connect the entire western part of the metro with the northern areas of Johannesburg. At present the built position of the PWV-9 and its future extension acts as a buffer for development.
- Van der Hoff Road is a strong structuring element of the north-western section of the region as is Nico Smith Street in the north-eastern part of the region.
- The region enjoys excellent accessibility to the CBD although limited by the various mountain ranges.
- The region is well served in all directions including rail with a number of stations linking Atteridgeville with the CBD. Rail transport plays an important mobility function in terms of the greater metropolitan area.
- Atteridgeville experiences strong development pressure in a westerly direction, resulting in impacts on the natural environment.
- The high-potential large natural areas (conservation and conservancy areas) in the undeveloped western part of the region need to be developed and protected.
- Industrial uses including the Pretoria Industrial Township give structure to the south-western part of the region.

### 3.7 ECONOMIC BASE

Together with the previously mentioned economic nodes, the Innovation Hub on the eastern boundary of the region is a further contributor to economic growth. Identified as one of the Gauteng Provincial Government's Blue IQ projects, the aim of the Hub is to become the high-tech business cluster in South Africa.

It is estimated that the working population of the site, once completed, will be approximately 6000 and that it will attract between 1500 and 2000 vehicles to the site. Providing local and foreign companies a gateway to high-tech resources in Africa, the Hub will allow for intense economic growth within the region, positively contributing to the local as well as the regional economic base.

Information will be updated with the information obtained during the compilation of the 2016 Transport Plan.

### 3.8 PHYSICAL ENVIRONMENT

#### 3.8.1 NATURAL STRUCTURING ELEMENTS

The environmental features of Region 3 are major form-giving elements that determine the surrounding urban structure.

Region 3 is characterised by the following:

- Significant ridge systems such as the Witwatersberg, Meintjieskop, Klapperkop, Salvokop, Strubenkop, Groenkloof Ridge and Lukasrand;
- Significant ridge systems and hills are prevalent through the whole region, notably the Magaliesberg range in the north, the Witwatersberg range in the central part and the Schurveberg range in the south. Of significance are also Kwaggasrand, Langeberg, Atteridgeville Ridge, Magazine Hill, Weskop and Skanska.
- Ecologically sensitive areas are found in the south-western part of the region where the Hennops River cuts through the Schurveberg Range and this forms a contiguous unit with the Crocodile River conservation area that have been established within and along the provincial border with North West Province.

- Significant watercourses and wetland systems throughout the region, most notably the Apies River, Walkerspruit, Rietspruit, Swartspruit, Crocodile River, Steenovenspruit and Colbyn Valley wetland/peat. However, the Apies, Walker, Steenoven, Modder and Moot watercourses have for the most been transformed by human intervention.
- Several ornamental parks such as Burgers Park, Magnolia Dell, Venning Park, Jan Cilliers Park, Springbok Park, Pieter Human Park as well as smaller parks in Flowers Street, Capital Park and Franzina Street.
- Significant cultural historic open spaces at the West Fort, Westfort Hospital, Rebecca Street Cemetery, Voortrekker Monument and Skanskop Fort, Freedom Park, Wonderboom Fort and Union Building Gardens.
- Significant institutional open spaces at the University of Pretoria and the Tshwane University of Technology;
- Significant recreational open spaces in the form of the Loftus Versfeld Rugby Stadium, Pilditch and Caledonian Stadiums, Harlequins and Gauteng North Tennis HQ, De Jong Diving Pool, Lucas Masterpieces Moripe Stadium in Atteridgeville, Adelaars and Rietondale Park.
- Three golf courses at the Pretoria Golf Club in Pretoria West; Waterkloof Golf Club in Monument Park and the Pretoria Country Club in Waterkloof.
- In addition, the region also includes the following prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane:
  - Inner City
  - Union Buildings
  - Marabastad
  - Embassies
  - Nelson Mandela Development Corridor
  - Church Square
  - Brooklyn Metropolitan Node
  - Hatfield Metropolitan Node
  - Pretoria Industrial Township, as well as Charlotte Maxeke Street and Soutter Street industrial area.
  - The Fresh Produce Market
  - The Capital Park Container Depot
  - The Steve Biko Academic Hospital
  - The Innovation Hub
  - Hatfield Gautrain Station
  - Pretoria Gautrain Station
  - CSIR



### 3.8.2 NODES

The region accommodates a number of important retail and office nodes, such as:

• Arcadia	8 000 m <sup>2</sup>
• Brooklyn Mall	51 000 m <sup>2</sup>
• Design Square	12 000 m <sup>2</sup>
• Sancardia	10 700 m <sup>2</sup>
• Sammy Marks	33 000 m <sup>2</sup>
• Sanlam	13 700 m <sup>2</sup>
• Sunnypark	36 100 m <sup>2</sup>
• Atteridgeville Attlyn Mall	15 000m <sup>2</sup>
• Quagga Centre	22 300 m <sup>2</sup>
• Atteridgeville CBD	22 900 m <sup>2</sup>
• Hatfield/Hillcrest	43 200m <sup>2</sup>
• Brooklyn	363 560m <sup>2</sup>
• Waverly Plaza/Codonia Ave	12 500m <sup>2</sup>
• Gezina City	25 000m <sup>2</sup>
• Mayville Mall	15 000m <sup>2</sup>
• Jacaranda Centre	30 000m <sup>2</sup>

### 3.8.3 LINEAR ACTIVITY AREAS

Outside the Inner City and the Brooklyn node, linear development occurs along the following roads:

- Helen Joseph Street
- Soutter Street
- Charlotte Maxeke Street
- Pretorius Street
- Francis Baard Street
- George Storrar / Middel
- Jan Shoba Street
- Parts of Park Street and Lynnwood Road
- Steve Biko Street
- Paul Kruger Street
- Van der Hoff Road
- Nico Smith Street

- Frederika Street between Frates Road and Johan Heyns Drive
- Moot Street
- Codonia Avenue

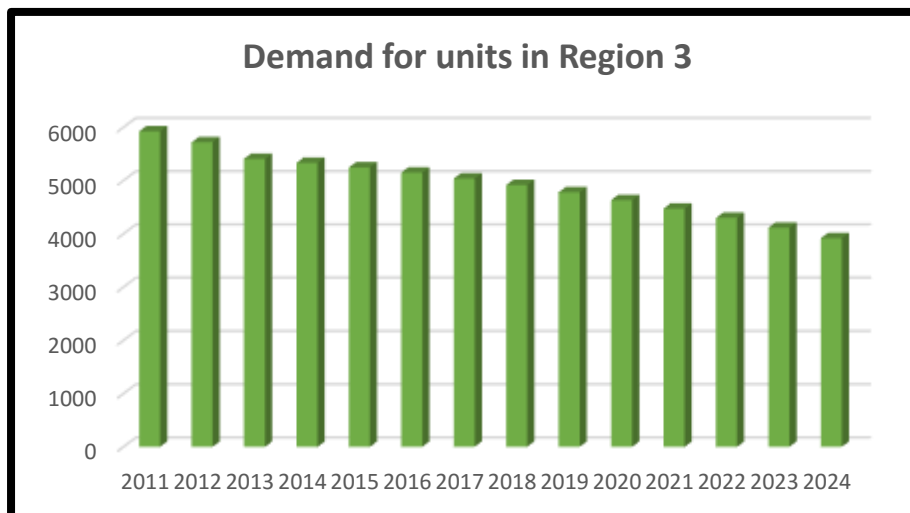
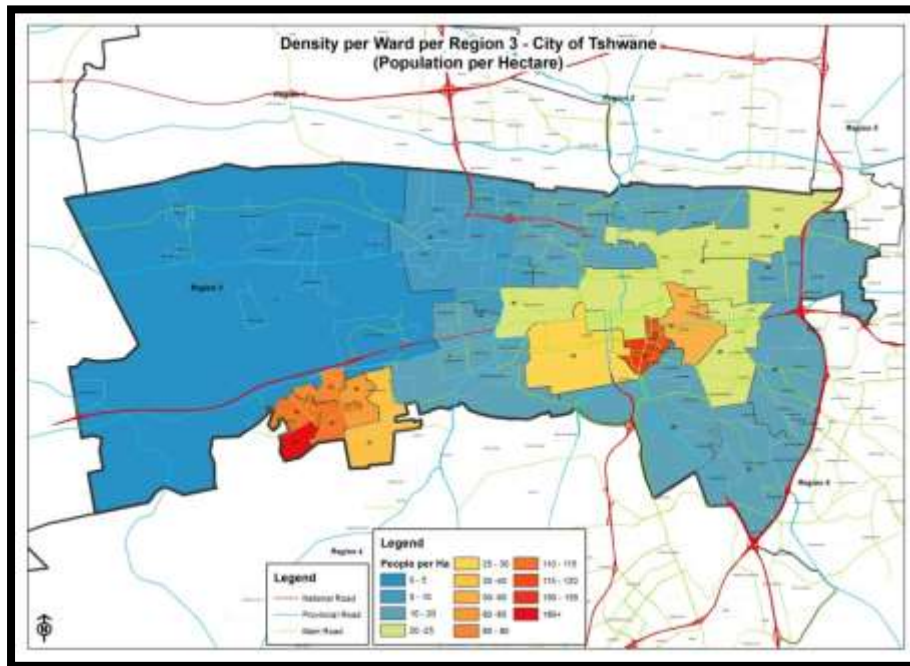
### 3.8.4 RESIDENTIAL

In terms of a city wide perspective, the region has the following residential characteristics. (Source: Tshwane Metropolitan Profile and 2008 Household survey).

- It includes high density residential development to the east of the Inner City in Sunnyside and Arcadia.
- In the area around Pretoria University there are a significant number of expanding residential developments, communes and other student accommodation.
- The low density residential areas of Brooklyn, Muckleneuk and Groenkloof can typically be described as well established, high quality residential areas. Due to their proximity to the Inner City and the Brooklyn Metropolitan Node, these areas are constantly under pressure for development. The access roads leading to the CBD through these areas are subject to intrusion of non-residential uses.
- Atteridgeville and Lotus Gardens formal townships
- Atteridgeville informal settlements
- Atteridgeville backyard dwellings

Vacant areas within the suburban environment have recently developed extensively with densities varying from 60 units per hectare to lifestyle and gentleman's estates. Rural densities are very low and only densities of 1 dwelling per 2 ha (management area) and 1 dwelling per 5 ha (rural area) are proposed.

The demand for additional dwelling units in Region 3 in terms of natural population growth was about 5000 dwelling units per year in 2018.



### 3.8.5 MOVEMENT AND TRANSPORT SYSTEM

#### 3.8.5.1 Road Network and Private Transport

A number of arterial routes play a metropolitan role in that they form part of a major movement system forming an intricate network within the region but also contributing to the metropolitan movement grid by conveying passengers from outside the region to/from the CBD.

The former N4 Magalies toll road traverses the area in an east-west direction. Supporting Class 2 and 3 roads include WF Nkomo Street (R104) and Van der Hoff Road (R514), both orientated in an east-west direction. North-south linkages are limited in the western developed area with the main link being Transoranje Road (R55) through the Daspoort Tunnel.

The north-western part of the region is boxed in by the Witwatersberg in the south and the Magaliesberg in the north. These mountain ranges restrict the opportunity to cost effectively create high standard north-south road links and inter regional traffic is mostly restricted to the Mabopane Freeway (R80).

The University of Pretoria's Experimental Farm forms a barrier with regard to east-west linkage across the N1 to the CSIR and beyond.

A number of east-west Class 3 routes, such as Nico Smith Street, serve the region although they are generally not continuous throughout the area due to the location of the Transnet Capital Park land preventing continuation.

There are a number of north-south routes in the region that include E'skia Mphahlele Street, Steve Biko Road, Paul Kruger Street, Bremer Street, Jan Shoba Street, Hamilton Street, Johan Heyns Drive and Florence Ribeiro Avenue.

East-west and north-south mobility is generally of a high standard.

### 3.8.5.2 Public Transport

#### ***Rail***

The region is served by commuter rail in the northern (Moot) and Hatfield areas towards the Inner City. This section of the rail network forms part of the 'ring rail system'.

Hatfield is also linked to the CBD and to areas further south by the Gautrain high speed rail line. This network however has only two stations within the boundaries of the region, although extensions to Menlyn Metropolitan Node and other eastern areas are considered.

In the north-western part of the region parallel to Van der Hoff Road, there is a railway line from the west linking into the commuter network, but this line is in a state of disrepair and is not part of the commuter network. It may be necessary to invest capital to upgrade this line to an appropriate standard to accommodate a commuter rail service.

In the western part of the region an important rail link runs from Saulsville station to Pretoria station. This link is an important element in the public transport system used by commuters from Atteridgeville to Pretoria Industrial and Pretoria West through to the CBD job opportunities.

#### ***BRT***

Line 1 A and Line 2 A will be operational by 2017 between Rainbow Junction and Hatfield via the CBD.

#### ***Road based***

Minibus taxis as well as a number of public and private bus services play an important role in distributing passengers throughout the Inner City and beyond. Many bus and taxi services terminate in and around the Inner City.

In the western, mostly low income parts of the region, bus, taxi and rail transport play an important part in transporting commuters to and from the CBD and other areas of work.

The first section of the TRT (Tshwane Rapid Transit) bus system (Line 2 A) has been operational since 2015 and links Hatfield with the CBD.

### 3.8.6 SERVICE INFRASTRUCTURE

The region is generally well provided with service infrastructure. With development rapidly moving closer to the provincial demarcated urban edge and towards the open space area to the west of the region, development pressure in this area challenges the rate at which bulk infrastructure can be provided to accommodate expansion.

## 3.9 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area an S.W.O.T. analysis for the region was done.

### 3.9.1 STRENGTHS

- The region is centrally located in terms of the metropolitan area and accessibility from all directions is good.
- The region holds the largest number of job opportunities in the metro.
- The region contains the Brooklyn node, which is fast growing to become the second largest financial zone of Gauteng.
- It contains of the Ring Rail and two of the three Gautrain Stations in Tshwane.
- Region 3 can be described as the educational heartland of the metropolitan area containing campuses of all 3 Tshwane Universities.
- The region is regarded as the Capital Core of the country with approximately 50% of the offices in the Inner City occupied by government departments and a number of embassies and foreign consulates located in this region.
- The region has the highest supply of A and B- grade offices in the metro.
- It has a number of landmarks and historic buildings providing tourist attractions and opportunities for new initiatives in this regard such as the Freedom Park development.
- The region is strategically located due to the CBD being included within its boundaries; there are good transport linkages between the region and the CBD.
- The Region has good road and rail infrastructure, facilitating north-south and east-west linkages.
- The area has good industrial infrastructure including ISCOR, Pretoria Industrial and the restricted industrial node along Charlotte Maxeke/Soutter Streets.

- There are many strategic land uses in the region, including the Loftus and Pilditch Sports stadium, show grounds, Pretoria West Power Station, and Fresh Produce Market.
- The Innovation Hub is located on the eastern boundary of the region, which will eventually have positive economic results to the benefit of the entire metro.
- The Hatfield station of the Gautrain is located in the region and will further economic development in the fledgling Hatfield metropolitan node.
- Cultural integration has taken place, which is not quantifiable, but positive on a metropolitan level.
- The northern section of the region is in close proximity to the CBD and enjoys good linkage to the core and southern metropolitan areas.
- The Proposed Ring Rail runs through the region with well-developed stations and related infrastructure supporting it.
- The region has numerous sectors providing job opportunities consequently resulting in a decrease in unemployment.
- The region accommodates well established residential areas and effective supporting social infrastructure.

### 3.9.2 WEAKNESSES

- The Inner City has lost its position as the area where the highest hierarchy of goods are provided.
- This has led to urban decay especially along the fringes of the CBD and in the high density residential areas.
- The Inner City was negatively affected by the relocation of Provincial Government to Johannesburg.
- Limited secondary sector activity exists in the region.
- Increased traffic volumes have led to the deterioration of residences located along certain routes and subsequent changes in land use, albeit illegal in terms of the town-planning scheme.
- The closing of ISCOR has led to a general decline in the western areas.
- There is a lack of private sector investment in the west.
- Poverty levels are relatively high in the west.
- Large extensive land uses occupy land to the north of Atteridgeville which limits northern expansion of the low income area and leads to urban sprawl.
- There is a lack of suitable land for expansion of Atteridgeville.
- The provision of social services is inadequate in the low income areas.

- The tolling of the former N4 renders this route unsuitable as a mobility route to benefit the region.
- The fact that the PWV-9 western bypass has not been fully constructed contributes to poor connectivity.
- Linkage to the north-eastern part of the metropolitan area is very poor.
- East-west linkage within the region is not continuous, which has led to the underdevelopment of the western parts.
- The railway line running through the north-western part of the region does not carry passengers. The railway line is completely disused and in disrepair and dilapidated which is a weakness of the region.
- There is a huge need for student accommodation not provided for by the universities.
- Underlying dolomite in the southern parts of the region dictates the intensity of development as well as typologies.

### 3.9.3 OPPORTUNITIES

- The region is the focus of large scale public investment as identified in the City Strategy, the Urban Development Zone, the Tsošološo Programme and the Tshwane Inner City Development Strategy.
- The possible development of the Pan African Parliament within the region.
- The Gautrain station in Hatfield will unlock development opportunities in the eastern part of the region, especially high-density residential development.
- The strategic locality of the UP Experimental Farm holds many opportunities if the potential could be further investigated.
- There is an opportunity to introduce residential densification around the Brooklyn node and along activity streets.
- The opportunity exists to introduce tourism development to the CBD in order to capitalise on the existing tourist attractions within the region.
- Development opportunities along the Apies River in accordance with the Mandela Urban Design Framework could be a catalyst for major urban regeneration.
- The cabinet approval of the Re Kgabisa Tshwane programme for re-investment in government offices and the public infrastructure to support the office re-development.
- The region includes strategically well placed land in terms of proximity to the CBD. In this regard the land to the north of Lotus Gardens and to the



east of Atteridgeville (Dog Training School) should be unlocked for development.

- The construction of the PWV-9 western bypass will provide a linkage between the region and areas to the south and north, which will generate development opportunities.
- The land located to the east and west of the PWV-9 could provide possible residential opportunities.
- The re-generation of ISCOR or utilisation of the infrastructure is a development opportunity for the area.
- The Capital Park Container Depot presents an opportunity for redevelopment.
- Densification and provision of more job opportunities at the stations located on the Ring Rail is an opportunity for this region.
- The creation of a special tourism area in the residential area of Capital Park presents possible economic opportunities.

#### **3.9.4 THREATS**

- Illegal ribbon development along the major mobility routes providing access to the Inner City from the east.
- Urban decay due to loss of higher order markets to the regional nodes.
- Uncontrolled intrusion of student housing in low-density residential areas due to the major increase in student numbers without adequate provision of housing.
- Due to the strategic locality of the region in relation to the CBD, and the Ring Rail, parts of the region are under threat due to opportunistic re-development not in support of public transport. Strong planning guidance in these instances will be required.
- The lack in finances and commitment to implement strategic interventions, such as the redevelopment of Capital Park, the construction of the PWV-9 and the K16 will lead to urban decay and lost opportunities.
- Uncontrolled and uncoordinated development outside the boundaries of the municipality, placing pressure on the internal movement system and engineering services of the region.
- Western growth could threaten ecologically sensitive environments.
- Underlying dolomite will inform development intensity towards lower density development or alternative land uses.

#### **3.9.5 ROLE AND FUNCTION**

The metropolitan role and function of the region can be described as follows:

- The region contains the Capital Core of the nation and is the heart of the city.
- It provides job opportunities to a large section of the metropolitan population.
- It is the area containing the highest intensity of land uses.
- Region 3 can be described as the educational heartland of the metropolitan area.
- Brooklyn and Hatfield are strong decentralised nodes, and support the Inner City and the other Metropolitan Nodes as part of the larger poly-centric city.
- The region accommodates a large and expanding student population.
- The western areas provide residential opportunities for the lower and middle income groups.
- The western areas provide blue collar job opportunities.
- The far western areas play an important role in the provision of regional open space in the metropolitan area with ridges and wetlands defining the area in the north and south.
- The region provides residential opportunities for medium income communities, close to job opportunities and the CBD.

#### **3.10 DEVELOPMENT TRENDS IN REGION 3**

In general terms the most development between 2012 and 2017 took place in and around the major nodes in Region 3 such as the CBD, Hatfield and Menlyn. The BRT Line 2 also resulted in the start of large scale densification along the densification corridor. This trend is expected to continue in the short term.

##### **TRENDS IN NODES**

Revitalisation of the inner-city is taking place with a large number of developments taking place within the inner city. The developments focus on retail, office and residential units.

High density residential development focused on student accommodation is currently taking place in Hatfield, Arcadia, Brooklyn with a further 5000 units that will be developed over the next five years, as well as in Capital Park.

New office development is taking place in Region 3 around the Menlyn node and specifically on the western side of the N1. Offices and a large college are being developed close to the BRT Line 2 B trunk route in Lynnwood.

### TRENDS ALONG CORRIDORS

The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 700m walking radius of a BRT / IPTN station. Densities in excess of 200 units/ ha are proposed.

The corridor along Line 2 A and B is expected to densify at a much higher rate than the other corridors in phase 1, due to the fact that the market has reacted to the BRT line specifically in this area and the need for housing around the University of Pretoria.

### TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

A major renovation and extension to the Atteridgeville center was done between 2012 and 2014. A total of 5,355 affordable rental accommodation projects, spread across the Region, are at various stages of planning and include: the Townlands development near Marabastad, the Timberland development in Arcadia, the Thembelihle Village in the West Capital Precinct, and the Fort West development; in addition to planned projects within the areas of Lotus Gardens and Zandfontein. In this regard, the City has already committed funding to the installation of services during the 2015/16 financial year.

### TRENDS IN SUBURBAN AREAS

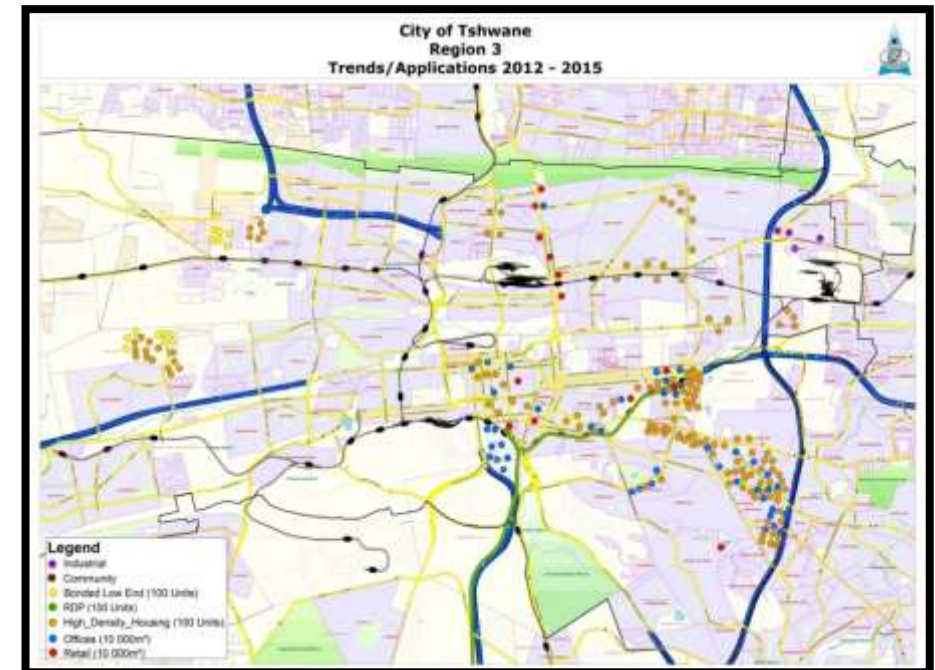
The suburban areas have not changed much in terms of densities but it is expected that large scale densification will take place along the two BRT routes in Region 3. In the west of Region 3 the first high density residential development in many years has taken place in Elandspoort. This 5 storey

residential development is close to public transport and is the first of its kind in the West of the City

### TRENDS IN RELATION TO SPATIAL PLANNING

The major developments in the region have taken place according to the prescribed planning of Region 3 namely in the nodes and corridors.

The RSDF for Region 3 calls for “drastic change in the built environment in terms of densities, typologies” and a move away from suburban typologies in densification zones along the BRT. This has taken place and the trend is expected to continue.



## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

There are numerous initiatives directed at re-generation of the Inner City. This effort must be supported from a spatial point of view. In this regard reference is made to the Inner City Development Strategy, The Urban Development Zone, the Inner City Development Framework (Re Kgabisa Tshwane) as under-taken for the restructuring of Government Buildings and the Mandela Development Corridor Urban Design Framework.

The region accommodates numerous historic buildings, landmarks and places of interest. Support for the development of the tourism sector should be given on all planning levels.

Higher order land uses should be concentrated in nodes at points that are most accessible on a local level. Residential densification in accordance with the Compaction and Densification Strategy is supported. This entails densification around nodes and along major public transport routes.

The region contains numerous educational institutions including a number of tertiary institutions. Provision for housing for these students should be made within the region.

It is proposed that east-west linkage within the region must be improved and linkage to the north-eastern part of the metro must be upgraded. The proposed Ring Rail must be supported in the region through the introduction of higher density residential areas around the stations.

The location of the northern part of the region is such that it could, and should, play a more prominent role in supporting the CBD. Therefore the re-allocation of well-located land, previously earmarked for industrial purposes, is now promoted for residential purposes (such as in Kirkney). The following sections will explain the different components of the Spatial Development Framework.

### 4.2 IMPROVE ACCESS AND LINKAGES

Linkage with the rest of the metropolitan area to the north and south must be improved through the provision of mobility routes, particularly the PWV-9 western bypass.

### 4.3 IMPROVE THE PROVISION OF SOCIAL FACILITIES

Lower income areas are subject to under-provision of social services. The proposed establishment of an urban core at Saulsville station should lead to a consolidation of efforts to provide such facilities in a focused manner.

The intermodal node to be developed at the Saulsville station will have a huge positive impact on the provision of needed community based facilities.

### 4.4 BROADEN RANGE OF HOUSING TYPOLOGIES AND UPGRADING OF RESIDENTIAL AREAS

The introduction of higher density housing in the strategic intervention areas will lead to the extension of the housing basis. It will increase the range of housing typologies, which could alleviate the pressure on the need for extension of the residential area in a westerly direction.

Existing residential developments will need to be upgraded and improved. This is proposed through consolidation of higher order land uses in nodal areas at points of highest accessibility within the region.

These objectives will have to be pursued and steps implemented in the very short term to be able to reap the spin offs. These efforts will have to be maintained in a sustainable manner so as not to fall further behind in the provision of housing units.

## 4.5 CONSERVATION

The region is surrounded by sensitive environmental areas particularly along the Magaliesberg, the Daspoortrant and the Schurveberg ranges and a strong conservation focus should be introduced to curb the threat of destruction. This will need conscious proposals to redirect development to more suitable areas.

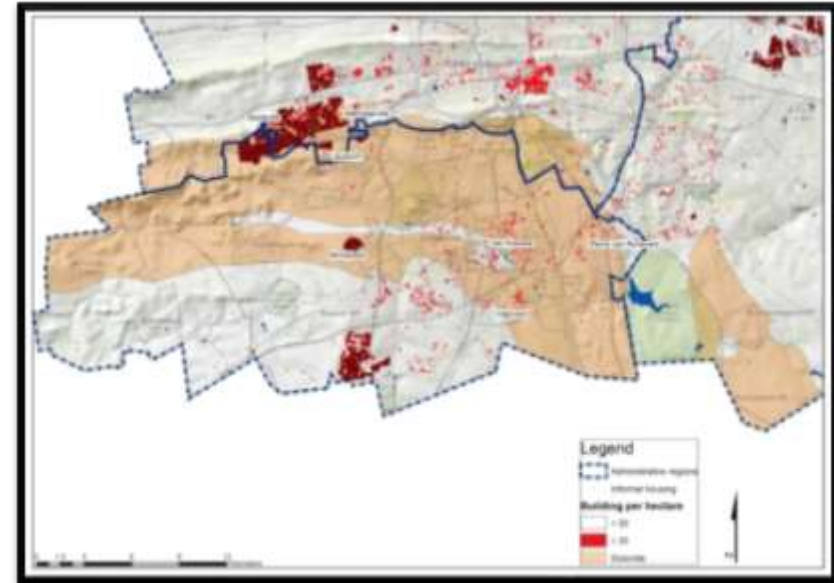
The western area of Region 4 (Centurion) as well as the western and south-western parts of Region 3 (west of the proposed PWV-9) is under pressure for development. The natural direction of growth can be attributed to the following:

- Spontaneous westward growth of Region 3;
- The rural development axis between Johannesburg and the Hartebeespoort Dam (Road P103-2);
- Lanseria Airport with economic activities;
- Diepsloot; and
- Olievenhoutbosch

Large portions of this area consist of elements of environmental importance. These environmentally sensitive areas need to be protected as a major environmental resource of the city.

## 4.6 GEOLOGY

The geological conditions in the south-western part of the region are predominantly Dolomitic limestone formations (Dolomite) with Syenite intrusions and Granite areas. Instability may occur natural but is expedited by many other orders of magnitude as a result of human activities. The primary triggering mechanisms in such instances include the ingress of water from leaking water-bearing services, poorly managed surface water drainage and groundwater-level drawdown. Instability can occur in the form of sinkholes and dolines, and could result in loss of life and limb.



Virtually every land-use application will only be considered once suitable engineering-geological investigations have been undertaken in order to assess the risk of ground surface and structural damage. Depending on the site specific characteristics and depth of the dolomite, this can have a decisive influence on the typology and intensity of land uses. Much can be achieved by geotechnical engineering solutions, construction reports and proper risk management plans.

It must be emphasized that any recommendations on land-uses and densities made in the southern-western part of the Region, are subject to the site specific conditions revealed after drilling has taken place. Any recommendations on land-uses and densities made in the RSDF, will not overrule any other legislation relating to geological conditions.

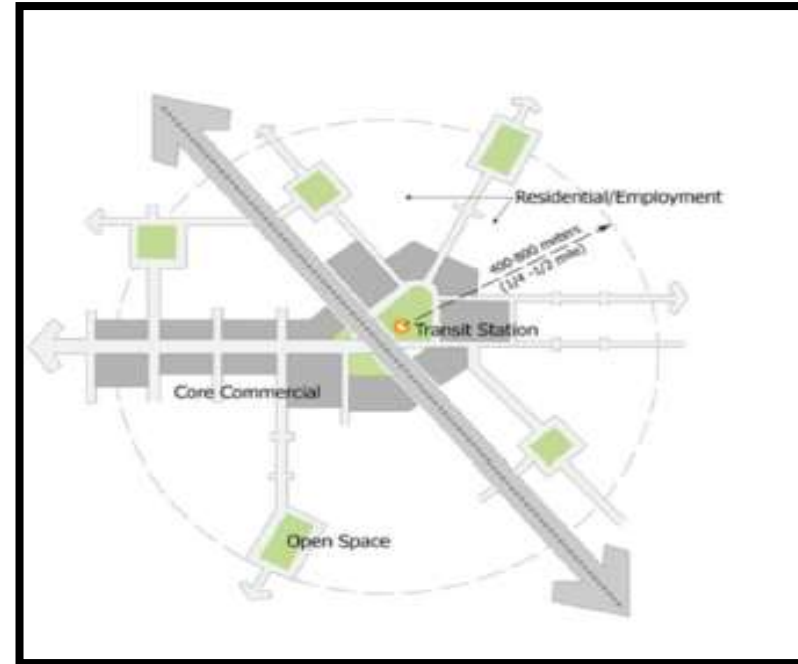


#### 4.7 METROPOLITAN NODES / TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)



The Metropolitan Spatial Development Framework (MSDF) proposes a number of Metropolitan / Transport Orientated Development Nodes and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance.

Metropolitan Nodes are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT station stop, or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 0 to 900 m from a transit stop, as this is considered to be a convenient distance for pedestrians. In terms of TOD it is important to provide a pedestrian-friendly environment and mixed use areas where the needs of commuters and residents can be addressed in one place. Small business opportunities must be promoted around the stations and along the trunk routes. It is further important that the mix of land-uses around the TOD should generate ridership at different times of the day (ideally 24 hours). According to the recent SAPOA publication Developing a Collective Approach to Mixed-use Development in Transit-Orientated Development Precincts “place to work, to live, to learn, to relax and to shop for daily needs should be located as close to the stop/station as possible”. Transit non-supportive uses such as car sales, car washes, warehouses, storage and low intensity industrial uses should be located elsewhere.



See detail principles in section **2.4.1 URBAN FORM AND TRANSPORT INTEGRATION**

The following nodal areas are highlighted in terms of the MSDF:

##### 4.7.1 CAPITAL CORE – INNER CITY

Region 3 includes the Inner City, which is the strongest node in the metropolitan area in terms of job opportunities, retail space and offices. Due to a change in the client profile of the Inner City, this node has lost its position as an area where the highest hierarchy of goods are provided.

Exoduses of higher order uses to other metropolitan nodes led to a change in the user profile of the Inner City over the last decade. The Inner City is mostly a trade destination for residents dependant on public transport and

residents of the higher density residential developments surrounding the Inner City.

The upgrading and regeneration of buildings and land uses in the Inner City in accordance with regeneration plans, will eventually lead to attracting higher income groups to the Inner City. Catalytic projects such as the Mandela Development Corridor will play a major role in upgrading efforts and should receive the full support of all role players.

The Inner City / CBD has approximately 50% of the metro's A and B grade offices. Efforts to consolidate the government departments within the capital core through the Re Kgabisa Tshwane project should be supported to enhance the capital city status of the CBD.

Head offices seeking to relocate to Tshwane should be accommodated in the Inner City area and every effort should be made to support such development.

Proposals contained in the Tshwane Inner City IDF and support via the Urban Development Zone initiative is welcomed and should be used to initiate intervention. Furthermore, detail proposals contained in the Mandela Development Corridor and the Pretoria Inner City Project of the Government (Re Kgabisa Tshwane) should inform regeneration of the Inner City.

New development in the CBD is currently focused around the Gautrain station and is predominantly office developments. The implementation of the Re Kgabisa Tshwane Programme has also resulted in numerous office buildings being redeveloped around the inner city and has contributed to the increase in the number of rezoning applications that have been received for office development in the CBD. Retail developments are also on the increase, although on a smaller scale, following the development of the Bloed Street Mall. Residential developments in the CBD currently take place through the conversion of old office buildings to residential flats.

#### **4.7.2 BROOKLYN METROPOLITAN NODE**

In terms of the Tshwane Spatial Development Strategy: 2010 and Beyond (TSDS), Brooklyn is also classified as a Metropolitan Activity Node with the same definition and functions assigned to it as in the MSDF.

In the Spatial Development Framework: Central Western Region (a previous RSDF) the prominent features pertaining to the Brooklyn Node and its surrounds are that the areas to the north and east of the Brooklyn node are earmarked to retain an exclusive residential character. The area between the existing Brooklyn Node and Florence Ribeiro Street (Nieuw Muckleneuk), as well as along Jan Shoba Street, could be considered for future mixed land-uses.

#### **Retail Development Trends**

There are no immediate major retail developments foreseen in the Brooklyn Node. Future retail developments will be considered on merit.

#### **4.7.3 HATFIELD METROPOLITAN NODE**

Hatfield is an existing mixed land-use node that has evolved into one of the city's most significant metropolitan nodes outside the CBD. The area is characterised by strong retail, motor service and office components. It also has certain unique elements such as a large number of diplomatic establishments and a large resident student community of the adjacent University of Pretoria.

The importance of the Hatfield metropolitan node is further emphasized by it having been chosen as one of only three Gautrain station sites in Tshwane, the other two being in the CBD and in Centurion. In addition, the existing Metrorail and the BRT (Bus Rapid Transit) system running through the node, makes it a public transport hub with excellent accessibility for all traffic modes.

#### **Retail Development Trends**

Hatfield is earmarked for major redevelopment in response to the Gautrain and the expansion of the University of Pretoria. Retail developments to the south of the railway line will be limited to convenience retail. Developments to the north of the railway line of approximately 50 000m<sup>2</sup> over the medium term are anticipated.

The area east of Jan Shoba Street will be redeveloped into a high density residential area. It is anticipated that there will be a need for convenience retail in this area over the medium term.

No additional shopping centres are expected for the area to the West of Hill Street towards the CBD.

#### 4.7.4 SAULSVILLE URBAN CORE

The area around the Saulsville railway station has been identified as an Urban Core. This activity area is linked to public transport facilities and represents the environment where high levels of public sector investment are required. The intention is to group economic, social and residential opportunities in mixed-use environments within these core areas.

##### Retail Development Trends

Future retail development should be focused around the Station node and have to include social and community services to stimulate a sustainable community development. The existing station area is expected to offer a wider tenant mix and act as a stronger draw card/catalyst for further development.

#### 4.7.5 MENLYN METROPOLITAN NODE

The Menlyn Metropolitan Node is not located within Region 3, but townships to the west of the N1 within Region 3 are within the sphere of influence of the node. Detail of the Menlyn node is contained in the Region 6 RSDF.

#### 4.8 REGIONAL / LOCAL / SPECIALISED NODES



The RSDF indicates a number of nodes (either existing or emerging) which are important on a regional and local level.

The extension of existing, well located nodes should however be encouraged before the creation of new nodes. As in the case of existing

nodes, it is proposed that higher density residential uses be introduced as part of the node. It should also include social and community facilities.

Typically community centres and neighbourhood centres should include both commercial and social facilities, such as retail facilities, schools, professional offices and community facilities, where such facilities are absent in the surrounding area.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centres as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

##### Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdated, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrading and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes, it is recommended that the structure be demolished ~~and~~ or converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/ major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdated and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built-up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail trends will 'force' landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters. Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built-up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally black urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.

It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary

retail facilities. Metropolitan nodes and Urban cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used. Land uses in these areas should be focussed on transport-orientated developments, with retail focussing on convenience and day-to-day goods.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal location of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses



- A feasibility study will be required for retail developments larger than 4000 square metres.

Various specialised medical nodes are also encountered in Region 3, particularly at some of the larger hospitals such as Eugene Marais in Les Marais and Zuid-Afrikaans in Muckleneuk. At these nodes medically related uses are supported in the areas immediately adjacent to the hospitals.

#### **4.9 JOB OPPORTUNITY / MIXED USE AREAS**

The Inner City core area contains the traditional CBD land-uses of retail, offices and services. Surrounding the core area is an area of lower density mixed land-uses which is aimed at providing support to both the core area and the other residential areas. The precincts, as proposed by the Re Kgabisa Tshwane programme, which are located along the pedestrian spines (government walk – Paul Kruger- and WF Nkomo Street) can be described as an intensified activity spine with mixed land use and served by dedicated public transport lines. Development along these spines is less constricted by access and mobility of private transport and form part of an extended activity area along these pedestrian spines.

The Brooklyn, Menlyn and Hatfield Metropolitan Nodes consist of retail, offices and higher density residential uses. The Inner City, Brooklyn, Menlyn, Hatfield, Hillcrest and the Innovation Hub are major job opportunity areas not only in the region but also in Tshwane as a whole.

The main economic opportunities of the region are located in Pretoria Industrial Township, Carl Street, Charlotte Maxeke Street and Soutter Street which presently accommodates 46 000 job opportunities. Despite this number of jobs, there is large scale poverty and unemployment.

A concerted effort should be launched to attract investment to the western part of the region especially the re-generation of ISCOR to stimulate the creation of job opportunities.

The northern part of the region (the Moot) currently has 37 000 job opportunities in Hermanstad, Van Der Hoff Road, Paul Kruger Street, Steve Biko Road, Gezina, Rietfontein and Koedoespoort. The adequate provision

of job opportunities within this part of the region indicates low levels of unemployment. It is important to support these economically active sectors to maintain and ensure sustainability within the region. Support should be given through the improvement of mobile linkage within the region as well as with other regions and the provision of improved public transport facilities.

The introduction of mixed land uses that are compatible with residential uses is proposed along Fred Nicholson Street, between E'skia Mphahlele Street and Steve Biko Road. A local precinct plan should be prepared for this area to guide development on a local scale. The eastern half of the street block west of Loftus Versveld Stadium (along Kirkness Street) as well as the erven along the southern side of Ayton and Park Street up to Maple Street in Sunnyside are also earmarked for Mixed land-uses that are compatible with residential uses.

This concept of mixed uses is also proposed for the Capital Park residential area. There is a demand for tourism related land uses in this area due to the proximity of the Rovos Rail headquarters to the north of the neighbourhood and the national zoo and the CBD to the south. It is proposed that a precinct plan be prepared for this area to address design guidelines and to ensure an environment of high quality.

Mixed uses are proposed for certain areas along Van der Hoff Road. It is proposed that residential uses be included in this area previously earmarked for industrial uses. Industrial areas are indicated at Hermanstad, west of E'skia Mphahlele Street, Kirkney and portions of the farm Zandfontein 317 JR.

The Innovation Hub is located in the eastern part of the region on the UP Experimental Farm grounds. This Blue IQ project will initiate technological development in Gauteng. Job opportunities will be created, although these will be mostly for skilled workers.

The open space erven along Lynnwood Road between Atterbury and the N1 are expected to be developed as mixed use over time. Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether these erven are subject to a possible E.I.A.

survey. Before any development or change of land-use can take place on these erven, access to the relevant erven should be discussed with the Traffic Engineers Department. Once all the above processes indicate that the erven may be utilised for purposes other than intended for, the correct procedure for the closure of the Park erven should be followed, where after the erven should be rezoned accordingly.

#### 4.10 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement. Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced.

By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre.

Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

**Transport Corridors** - For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 3. They are regarded as the main public transport channels of the region, – focussing on the prioritising of public transport and non-motorised transport over private transport. A pedestrian/cyclist orientated environment with appropriate traffic calming for cars and densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.



The introduction of higher densities along these spines should be encouraged. Detail BRT route and station planning for Atterbury Road, Lynnwood Road and Jorrison Street will determine future land uses with the focus on the stations and surrounding areas.

The mobility function of Justice Mahomed Street and Brooklyn Road is of great importance between the Metropolitan Nodes of Menlyn, Brooklyn and the Inner City. It is important to facilitate development in such a way that the mobility function is not compromised. The Mandela Development Corridor (MDC) is concentrated along Nelson Mandela Drive (M3). This north-south route plays an important role with regard to mobility and also acts as the boundary between the Inner City and Sunnyside / Arcadia. An urban design framework has been completed for the corridor. The framework makes provision for clusters along the corridor and the nature of these clusters range from arts and culture to government precincts.

The MDC and Re-Kgabisa Tshwane (an initiative from the Department of Public Works in conjunction with the COT), makes provision for considerable change along portions of Paul Kruger and Helen Joseph Streets. The affected areas will accommodate government precincts constructed around National Government Buildings of the various ministries. The Department of Public Works will finalise a design framework for the precincts, and it is expected that more parts of Helen Joseph Street will be closed off to vehicular traffic. The former Church Street (R104) possesses a strong mobility function as an east-west route through the city. It also links up areas from Silverton through to Atteridgeville and Lotus Gardens. The character of the road changes from Mobility Road to Activity Spine to Mobility Spine and in the Pretoria (West) area it has spurred on limited nodal development.

The former N4 freeway currently contains toll plazas in close proximity to the city centre. If the toll closest to the CBD is to be lifted, the mobility function of this road would increase tremendously due to the convenience of using it as a link to the west as an alternative to WF Nkomo Street, especially by mini-bus taxis. In the Pretoria (West) area, Maunde Street contains a strong mobility function until it enters into Atteridgeville. It is hoped that in the future, Maunde Street would give rise to greater activity and thus function as a bona-fide activity street in Atteridgeville.

Transoranje Road/Bremer Street (R55) is the most important north-south inter-regional link forming part of the major mobility spine (the MCDC) from Region 3 through to Region 4 (Centurion) in the south. Of lesser importance but still fulfilling an important north-south link is the Hornsnek Road (M17), which links Region 3 to Region 1 in the north-west of the metro.

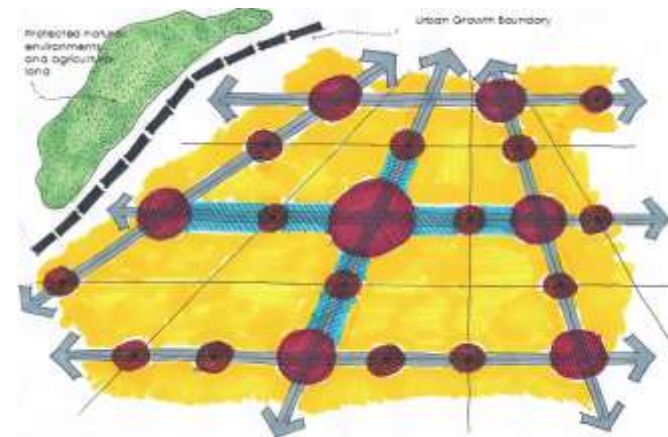
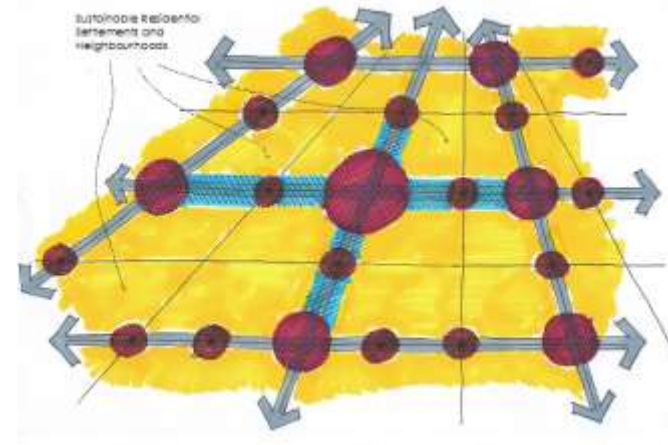
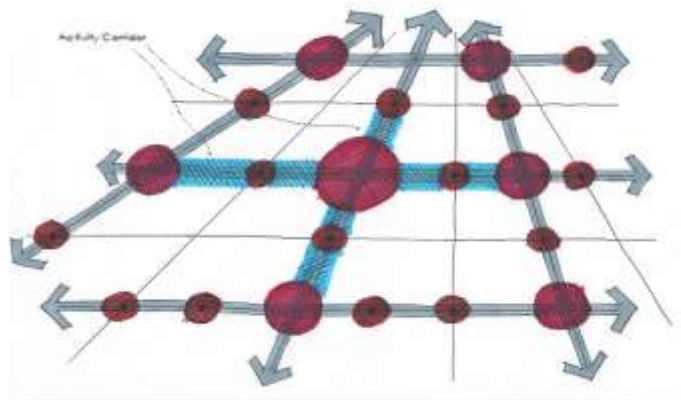
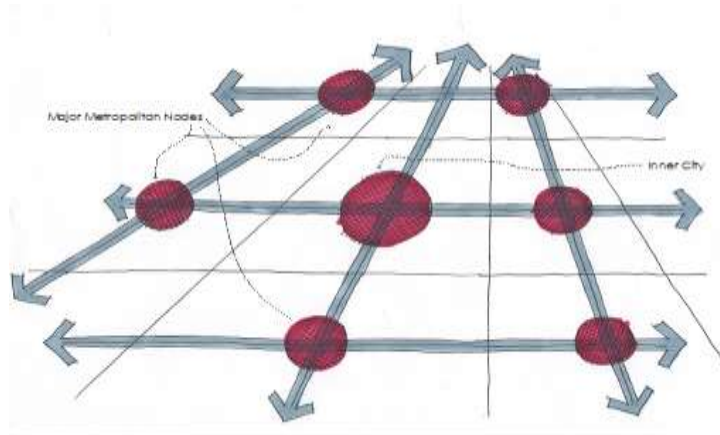
The region contains numerous prominent arterials. Steve Biko Road and Johan Heyns Drive (the M5 one-way pair) have a strong activity function. However, in the context of the Metropolitan region, these routes also play a significant role with regard to north-south mobility. The pair is one of only a few routes that allow access over the Magaliesberg. Paul Kruger Street and Mansfield Avenue (R101), running from the CBD in a northerly direction, operate parallel to each other. Mansfield Avenue was developed in order to relieve traffic congestion on Paul Kruger Street, which contains a mix of retail and office activity, whereas Mansfield Avenue will play host to high density office space with residential uses as well.

Van der Hoff Road (R514) and Nico Smith Street (M8) are designated as activity spines in the region. These spines have a mobility function which needs to be protected by not permitting direct access to individual land uses. Activities along the length of these roads should be located in nodes or at localities responding to access opportunities. Residential densification along these roads is proposed to capitalise on the public transportation advantages that exist.

Jan Shoba Street from Stanza Bopape Street up to Lynnwood Road is an existing activity street, as is Lynnwood Road from Jan Shoba Street up to Kings Highway. However, development along more sections of these spines should only be permitted subject to suitable access which would normally mean from internal roads.

Land-use changes, subdivisions and consolidations of erven adjacent to existing nodes in residential areas will be evaluated in terms of the development guidelines as indicated in this section. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the development guidelines as set out in this chapter.

## Spatial Concepts for Nodes and Corridors





The interrelation between a proposed functional road classification and activity matrix is illustrated by the table below and is only used for the purposes of the evaluation of land use applications. (The South African Road Classification and Access Management Manual is applicable to engineering standards for roads and access) (*Amended as per Council resolution dated 27/09/2018*):

Functional Road Classification		Land Use	Function and Design	Roads and Streets
<b>Highways</b> (Class I)		<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N1 (Eastern Bypass),</li> <li>former N4 (Magalies Toll Road),</li> <li>N14 (Ben Schoeman Highway),</li> <li>R21 (Nelson Mandela Freeway, south of Solomon Mahlangu Drive),</li> <li>Proposed PWV-9 (Western Bypass)</li> <li>R80 (Mabopane Freeway),</li> </ul>
<b>Mobility Spine</b> (Class I & II)		<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>Baviaanspoort (M15);</li> <li>Bremer / Transoranje (R55);</li> <li>Brooklyn road between Lynnwood road and Hazelwood road.</li> <li>Christina de Wit (M18);</li> <li>CR Swart/Soutpansberg (M22);</li> <li>E'skia Mphahlele Drive (M1);</li> <li>Garstfontein (M30), east of Matroosberg;</li> <li>Dely / Duxbury (M30) up to Jan Shoba;</li> <li>George Storrar / Middel / Jan Shoba Street (M7), except the sections through the Brooklyn &amp; Hatfield nodes;</li> <li>Gordon/Stead/Codonia (M7) up to Collins;</li> <li>Frates (M29);</li> <li>Hamilton / Troye / Elandsport / Steve Biko (M5);</li> <li>Hornsnek (M17);</li> <li>Justice Mahomed Street;</li> <li>Johan Heyns Drive (M5 south);</li> <li>Kilnerton;</li> <li>Kgosi Mampuru/Old Johannesburg (R101);</li> </ul>

Functional Road Classification		Land Use	Function and Design	Roads and Streets
				<ul style="list-style-type: none"> <li>• Magalies Toll Road/ Vom Hagen (former N4) east of Transoranje;</li> <li>• Nelson Mandela (R21/M3) north of Solomon Mahlangu Drive;</li> <li>• Pretoria/Elias Motswaledi Street (R104), except for sections through Silverton, between End and Jan Shoba Street and the CBD between Hamilton and Quagga;</li> <li>• Pretorius/Francis Baard Street (M2), except in the Hatfield node and to the west of Hamilton;</li> <li>• Proposed K16;</li> <li>• Roger Dyason/Eeufees (M7)</li> <li>• Rigel/Florence Ribeiro Avenue (M9);</li> <li>• Solomon Mahlangu Drive (M10);</li> <li>• Stormvoël/Nico Smith/Frederika (M8);</li> <li>• Steve Biko (M5 north) except between Malherbe &amp; Hertzog;</li> <li>• Van der Hoff (R514) west of Bremer;</li> <li>• WF Nkomo Street (R104) west of Quagga;</li> <li>• Quagga (R55/M22);</li> </ul>
<b>Transport Corridors (Class II and III)</b>		<ul style="list-style-type: none"> <li>• Mixed land uses at BRT stations.</li> <li>• Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>• High density residential along corridor</li> <li>• Nodal development with a mixed use character (developments concentrated at intersections and around BRT stations)</li> </ul>	<ul style="list-style-type: none"> <li>• Public –transport orientated – with the prioritising of public transport over Private transport.</li> <li>• Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>• Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>• Limited accommodation for private cars on the Corridor.</li> </ul>	<ul style="list-style-type: none"> <li>• Atterbury Road (Lynnwood to N1) Line 2 B</li> <li>• Burnett between Jan Shoba and University; (Line 2 A)</li> <li>• Jorissen (Line 2 A)</li> <li>• Kotze (Line 2 A)</li> <li>• Lynnwood Road (from University Road to Atterbury Road) Line 2 B.</li> <li>• Paul Kruger (Line 1 A)</li> <li>• Mansfield (Line 1 A)</li> <li>• Maunde, M22, WF Nkomo (Line3)</li> <li>• Nana Sita (Line 2 A)</li> </ul>

Functional Road Classification		Land Use	Function and Design	Roads and Streets
			<ul style="list-style-type: none"> <li>High accessibility for pedestrians.</li> </ul>	
<p><b>Mobility Roads</b></p> <p><b>(Class III and IV)</b></p> <p>Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments located alongside.</p> <p>It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)</p>		<ul style="list-style-type: none"> <li>Medium to high density residential as per density map.</li> <li>Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>Limited direct access permitted (not frequent)</li> <li>Services roads to enhance access opportunities</li> <li>On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>Plays a collector and distributor function though trips are of a short distance</li> <li>Pedestrian movement along the route in various parts</li> <li>Public transport very important along Mobility Roads</li> <li>Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>Acridian/Anthesis/Citron;</li> <li>Albert/Crown/Main/Waterkloof/Fehrsen;</li> <li>Ben Swart;</li> <li>Charl/Pretoria/Kenneth west of Hornsnek;</li> <li>Collins between Codonia and Fry;</li> <li>Denyssen/Van Rensburg/De Beer up to Steve Biko;</li> <li>Dickenson/ Bosloerie</li> <li>Dely south of Garstfontein;</li> <li>Elephant / Cygnus in Waterkloof Ridge and Monument Park; Staatsartillery;</li> <li>Frates /15<sup>th</sup> / Parker,</li> <li>Fry between Collins and the Hardy Muller circle;</li> <li>Government between Eastwood and Hamilton;</li> <li>Hendriks/Charl Cilliers up to Denyssen;</li> <li>Hertzog;</li> <li>Hlahla/Komane/Moroe/Tlou;</li> <li>Kings Highway;</li> <li>Khoza;</li> <li>Leyds between Stanza Bopape Street and George Storrar;</li> <li>Lynette/Koedoespoort/Cresswell;</li> <li>Lynnwood Road (from Atterbury Road to N1) Line 2 B.</li> <li>Maunde;</li> <li>Masopha;</li> <li>Meyer;</li> <li>Micheal Brink (Nico Smith) / Frederika (M8)</li> <li>Pierneef/Adcock/Flowers/ Trouw/Jacobs;</li> <li>Park up to Festival;</li> <li>Rebecca between Staatsartillery and Vom Hagen; Strachan/Rod;</li> </ul>

Functional Road Classification		Land Use	Function and Design	Roads and Streets
				<ul style="list-style-type: none"> <li>Sarel west of Charl Cilliers;</li> <li>Schurveberg;</li> <li>Seeiso/Mareka;</li> <li>Schuurmanns;</li> <li>Solomon/Franzina up to Paul Kruger; Fred Nicholson</li> <li>Tom Jenkins/Eastwood/Kirkness;</li> <li>18th south of Meyer to Frates;</li> </ul>
<b>Activity Spine</b>  <b>(Class III and IV)</b>  These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and medium to higher density residential developments that create a vibrancy and specific identity.		<ul style="list-style-type: none"> <li>Mixed uses along the spine</li> <li>Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>Urban design guidelines important to guide the development along the spine.</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>High accessibility to land and normally only gaining access from a service road.</li> <li>Mixed land uses along service roads</li> <li>High density development with mixed uses must be promoted in suitable locations along these routes.</li> <li>On-street parking where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Charlotte Maxeke/Soutter (M2); Stanza Bopape/Helen Joseph/WF Nkomo (R104) between Leyds and Quagga;</li> <li>Codonia (M7) north of Collins;</li> <li>Garstfontein (M30) between Matroosberg and Dely;</li> <li>Jeppe/Steve Biko (M5) between Justice Mahomed and Soutpansberg;</li> <li>Middel/Jan Shoba (M7) between Dey and Justice Mahomed and between Lynnwood and Stanza Bopape;</li> <li>Pretorius/Francis Baard Street (M2) through Hatfield;</li> <li>Stanza Bopape Street (R104) through Silverton and between End and Jan Shoba Street;</li> <li>Steve Biko Road (M5) between Malherbe and Hertzog;</li> <li>Van der Hoff (R514) between Bremer and E'skia Mphahlele;</li> </ul>
<b>Activity Street</b>  <b>(Class IV and V)</b>		<ul style="list-style-type: none"> <li>Low-intensity mixed land uses with a focus on community services and economic opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (60km/h and less)</li> <li>Mixed land uses along service roads</li> </ul>	<ul style="list-style-type: none"> <li>Arcadia between Festival and Grosvenor;</li> <li>Brooks Street from Brooklyn Road up to Ox Road.</li> <li>Brookside Road between Brooklyn Road and Brooks Street.</li> </ul>



Functional Road Classification		Land Use	Function and Design	Roads and Streets
Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities		<ul style="list-style-type: none"> <li>• Suburban Densification for residential developments</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• Bronkhorst east of Florence Ribeiro;</li> <li>• Court between WF Nkomo Street and Luttig;</li> <li>• Dely</li> <li>• Dey and Tram between Middel and Lange;</li> <li>• First Street.</li> <li>• Grosvenor, Hilda and Festival, between Stanza Bopape and Burnett;</li> <li>• Hazelwood Road between Brooklyn and 26<sup>th</sup> Street (Provided that a line of no access will be applicable from Firwood Street between 18<sup>th</sup> Street and Sunrise Street). Dely Road between Hazelwood Road and Matroosberg Road.</li> <li>• Ketjen between Vom Hagen and WF Nkomo;</li> <li>• Luttig between Court and Rebecca;</li> <li>• Marivate;</li> <li>• Mammogale and Malebye between Marivate and the Sausville Arena;</li> <li>• Moot between E'skia Mphahlele and Christian;</li> <li>• Ox Road.</li> <li>• Park between Glyn and Hilda;</li> <li>• Rebecca south of Vom Hagen;</li> <li>• Robert Sobukwe;</li> <li>• Selati Street from Hazelwood Road to Garsfontein Road.</li> <li>• Skilpad in Monument Park;</li> <li>• The Hillside Street between Klarinet Street intersection and Atterbury Road. Klarinet Street.</li> <li>• The Village / Rodericks south of Lynnwood;</li> <li>• Thomas Edison Street between Mackenzie Street and Justice Mahomed Street.</li> <li>• Veale between Muckleneuk and Lange;</li> </ul>

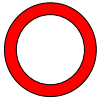
Functional Road Classification		Land Use	Function and Design	Roads and Streets
				<ul style="list-style-type: none"> <li>12<sup>th</sup> Street between Justice Mahomed Street and Brooklyn Road.</li> <li>13<sup>th</sup> Street between Justice Mahomed Street and Thomas Edison Street.</li> <li>24<sup>th</sup> Street between Justice Mahomed Street and Atterbury Road.</li> <li>25<sup>th</sup> Street between Justice Mahomed Street and Atterbury Road.</li> <li>26<sup>th</sup> Street between Justice Mahomed Street and Hazelwood Road.</li> </ul>
<b>Residential collector</b> <b>(Class IV a and b)</b> Local collector road within suburb, characterised by small scale social amenities		<ul style="list-style-type: none"> <li>Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (50km/h and less)</li> <li>Must be provision for pavements</li> <li>Parking on site</li> <li>These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>As per map</li> </ul>
<b>Residential collector</b> <b>(Class V)</b> Local road within suburb		<ul style="list-style-type: none"> <li>Residential Street</li> <li>Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (50km/h and less)</li> <li>Parking on site</li> <li>Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>As per map</li> </ul>

## 4.11 DEVELOPMENT GUIDELINES

### LAND USES

The desired activities along the activity corridors, streets and nodes is illustrated by the following notation and definition and it must be used as a guideline and be read in conjunction with the Nodes and Corridor Map at the end of this section.

### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT station, bus terminus or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 500 m to 900 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

### EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realization of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment / institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses/rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.

## OFFICE USES



These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

## INDUSTRIAL USES



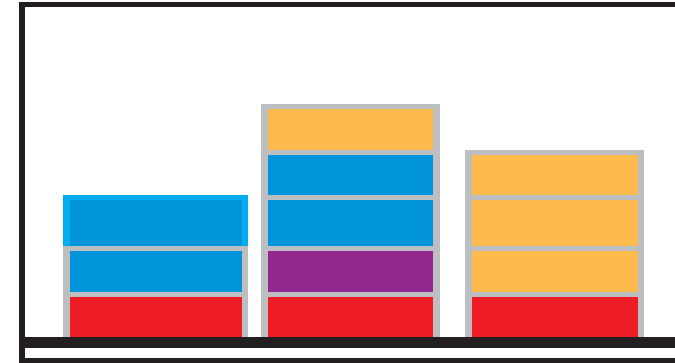
Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development is to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS, MIXED USES AREAS AND DENSIFICATION AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (SPLUMA Objective, promote economic and social inclusion).
- A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops ( National Development Plan, GSDF, Principle)
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (SPLUMA Principle 7(a) Spatial sustainability).



- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)
- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:



- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of services



#### THE FOLLOWING DEVELOPMENT GUIDELINES SHALL BE USED:

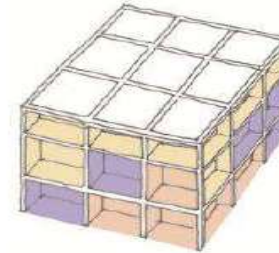
##### FAR

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.

##### HEIGHT

- 2 storeys or higher, depending on the locality and surrounding land uses. Clause 26(2) (b) of the Tshwane Town Planning Scheme, 2008, shall be excluded.
- Height Restriction in TOD and Transport Corridors will be used as a guideline as indicated in this RSDF.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected as far as possible from the adjacent structure.

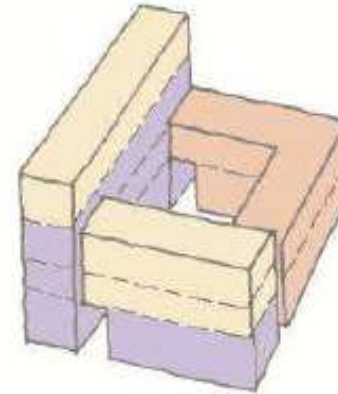
#### FLEXIBILITY



Positive settlements have always showed a measure of flexibility in their structure to accommodate changes in use and occupants over time. 3 dimensional frames and 2 dimensional layouts should be robust in their ability to be re-occupied and / or redeveloped. This is important not only to save on resources and minimise waste but to accommodate a range of agents and unexpected demands over time.

Source: National Treasury: Urban Hub Design Toolkit: 2013

#### COMPACTION AND INTEGRATION



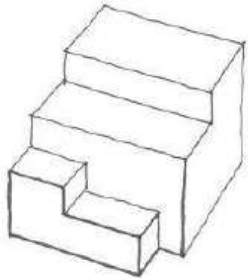
The intensity of land use activities and density of buildings is essential to creating a vibrant urban environment. Where land uses are separated and developed in discreet pockets on their own land portions, the intensity of use of the total environment is diluted.

Compaction requires that land uses are integrated horizontally and vertically. The integration of different user groups is also critical to ensure vibrancy. Two of the main sets of user groups are pedestrians and vehicle owners. The

potential conflict between these two user groups can be managed by prioritising one or the other clearly through design interventions. In the case of the Hub Precinct pedestrians will generally be prioritised above private vehicles and their owners.

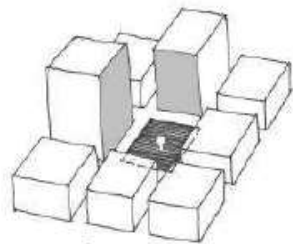
Source: National Treasury: Urban Hub Design Toolkit: 2013

## SCALE



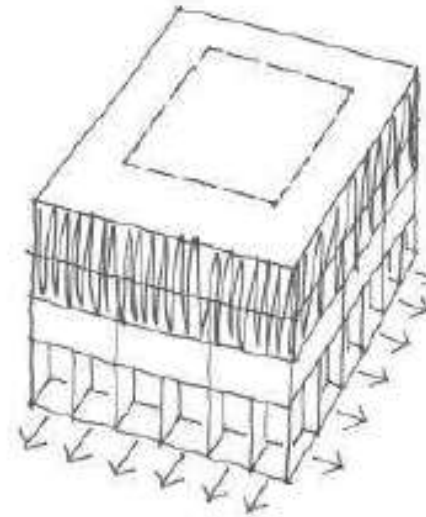
Scale is about the relationships between, in this case, a human being and their built environment. While being a quality that cannot be easily defined it is something that is critical to the psychological well-being of an individual. Design associated with the public realm should always use the person on foot as measure of appropriateness.

The width of the street spaces and the extent and shape of the public squares, forecourts etc. should be carefully considered against the volume of people expected to occupy the space and the nature of the expected activity. The over scaled nature of spaces and buildings can be mitigated through design and / or the utilisation of trees or other vertical elements.



Source: National Treasury: Urban Hub Design Toolkit: 2013

## DIVERSITY

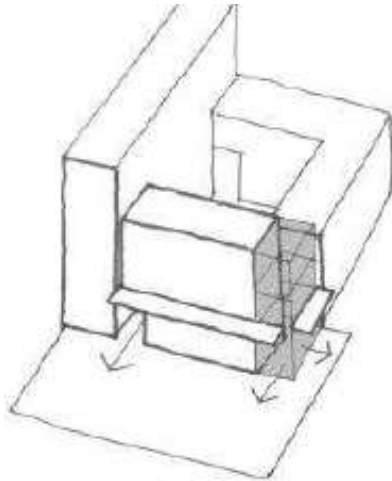


Buildings facing onto public streets and in particular the main PT routes and public spaces should accommodate a range of occupants. Large operators often require visible entrances but prefer blank edges for security and / or privacy.

Large tenants can therefore locate internal to development blocks, freeing the edge of the urban blocks for a range of smaller scale operators. The modules of the block interfaces should ideally be narrow to ensure the largest number of operators is exposed to the passing public. A vertical mix is also essential to ensure extended periods of activity into the evenings across areas that will contain some residential units.

Source: National Treasury: Urban Hub Design Toolkit: 2013

## LEGIBILITY



Development of the blocks needs to be legible to users in environments which are dense and integrated. Entrances need to be located in high visibility locations such as corners or associated to key open spaces. Where they are not they should be designed as welcoming spaces that people can clearly understand as the main access points to their intended destinations. The integration of horizontal and vertical circulation is also preferable.

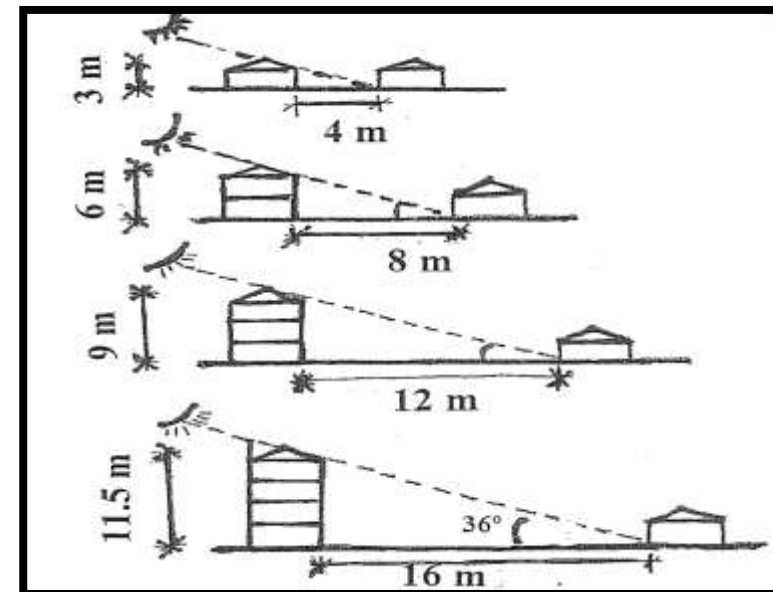
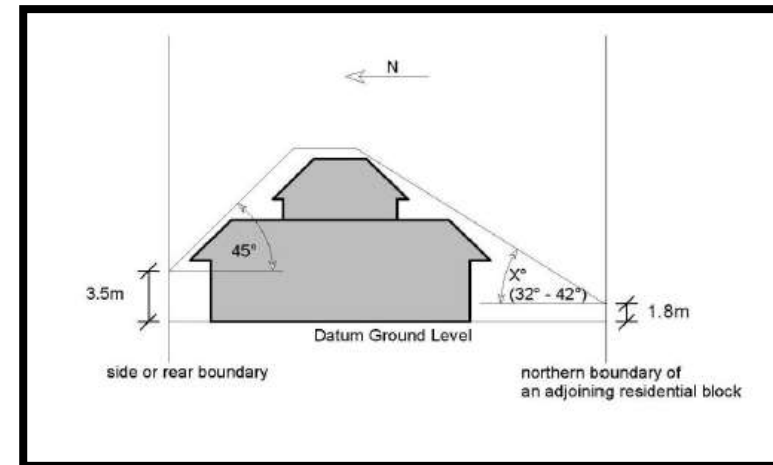
Furthermore design of the volumes of the intended development should give clues as to how the land uses / tenants / occupants / activities are distributed and relate to each other. For example where courtyards are part of the broader city public network of spaces then the public should have glimpses of the inner courtyard from the outside to know that they exist.

Source: National Treasury: Urban Hub Design Toolkit: 2013

## SOLAR ACCESS AND OVERLOOKING

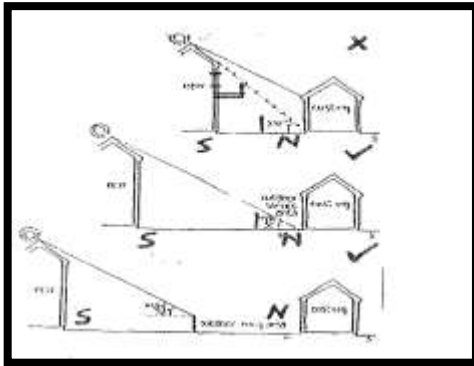
- Solar access to adjacent residential structures to the south of a property to be developed must be protected as far as possible. (sun angle of about  $36^\circ$  to  $41^\circ$  as guideline), measured from the adjacent structure. The slope of the site, height of windows, size of windows, roof overhang, orientation of buildings, height of boundary walls and existing vegetation will also influence solar access. Solar access studies can be required by the City of

Tshwane if the influence on neighbouring residential properties is obscure. Solar access and overlooking in nodal areas and TOD will be evaluated on merit as solar access and the restriction of overlooking will not always be achieved due to the height of buildings promoted in these areas.



- To prevent overlooking onto the northern side of adjacent residential buildings, the following is applicable:

- No balconies may be established on the southern side of the building abutting a residential property.
- Windows must be located at such height or distance from the boundary of a residential property that they do not enable overlooking.

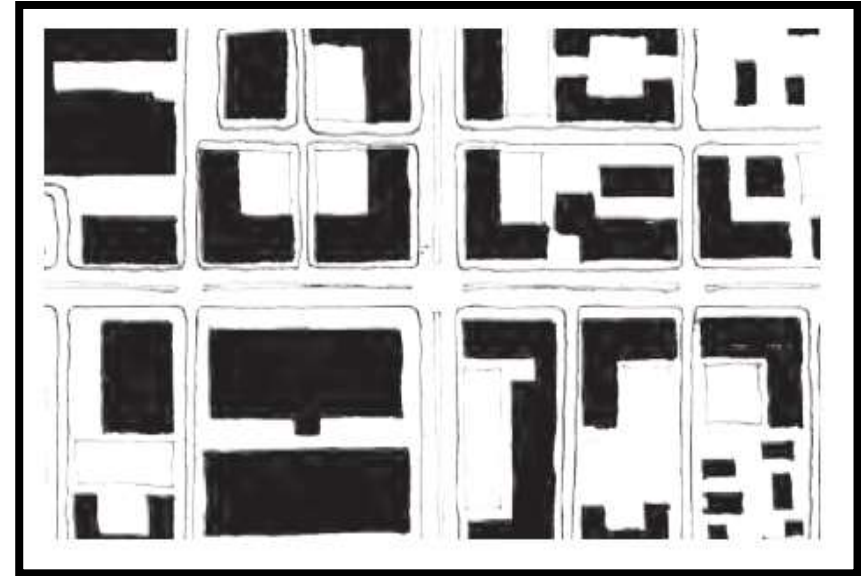


- A row of indigenous trees should be planted next to the wall. If the boundary is on the northern side of the residential property, only deciduous trees should be used.



Source: City of Tshwane: Centurion CBD Framework, 2013

## BUILDING PLACEMENT



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible on the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks.
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.
- Buildings at intersections within the corridor and activity street should provide for landmark features.
- Orientate new building to optimise sunlight and amenity for dwellings, private open spaces and adjoining public spaces.
- Large buildings should be treated as aggregates of smaller components to achieve a human scale. Therefore, massive buildings should be avoided.



- Variations in the setback are encouraged to respond to building function and to create visual interest.
- Monolithic slab-like structures that wall off views and overshadow the surrounding neighbourhood are discouraged.
- Buildings may, but are not required to, step back above the minimum height required along the street. Step-backs should be judiciously applied to minimise disruption of the overall street wall.
- Breaks in the street wall should be limited to those necessary to accommodate pedestrian movement.

## BUILDING LINES

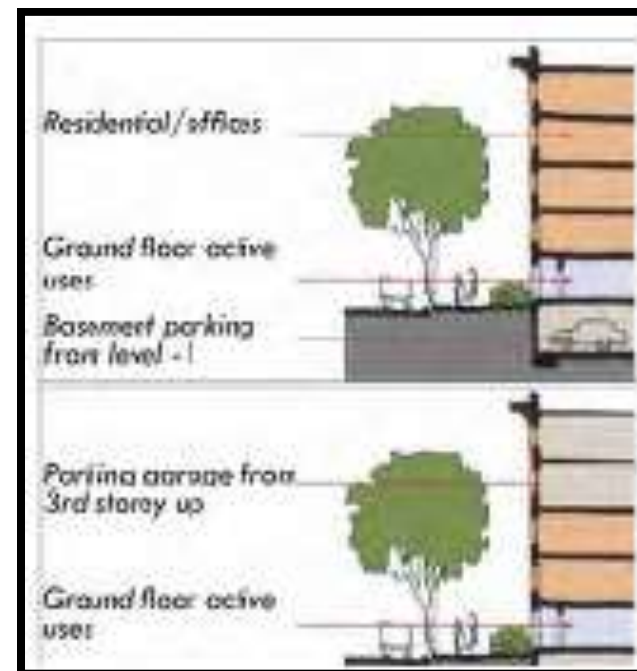
- Build to lines or minimum 2 meter building lines on street boundaries.
- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces.

## PARKING

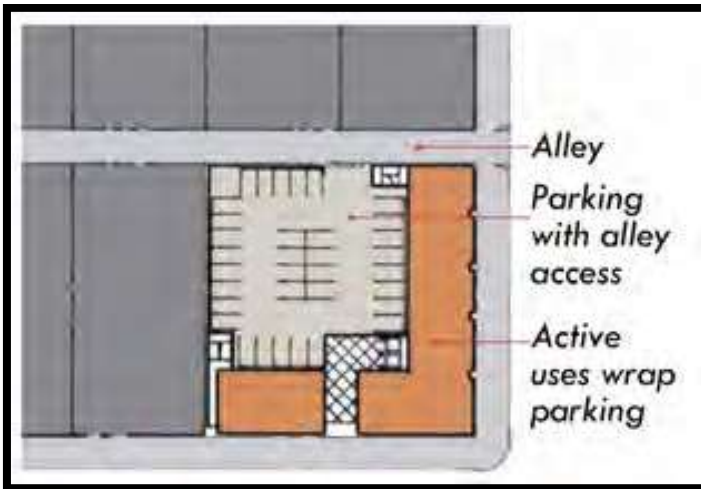
- Parking ratios are an important tool in the development of corridors and TOD's.
- Revise parking laws – de-link them from land use and link them to spatial proximity to public transport facilities.
- Discouragement of the use of private cars must be reflected in the parking ratios of TOD and along Transport Corridors
- Parking relaxations will be applicable in TOD and Corridors.
- **Parking ratio guidelines for TOD and along Transport Corridors**
  - Nodal and Corridor retail: 3/100 m<sup>2</sup>
  - Nodal and Corridor offices: 2,5/100 m<sup>2</sup>
  - Nodal and Corridor residential: 0,5/unit

(Ratios are only a guideline and will depend on applicable area)

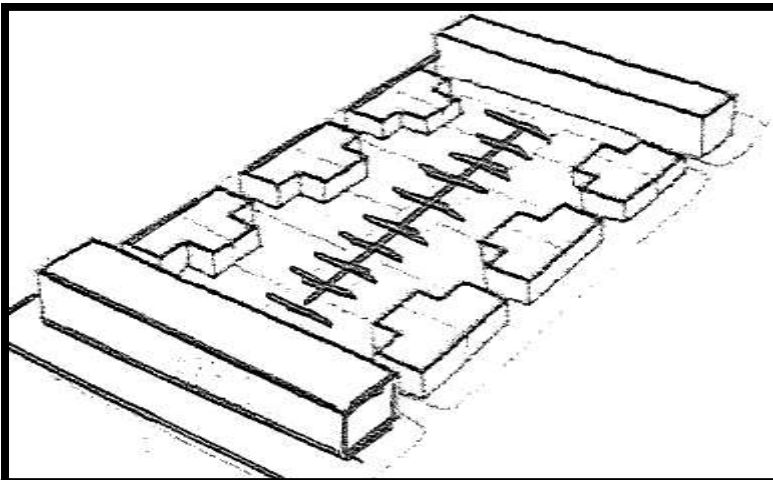
- Developers should determine their own parking ratio in in TOD and along Transport Corridors
- Parking ratio's will depend on parking available.
- **Discourage the use of private car through** reduced private parking ratios in TOD and along Transport Corridors
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available.
- Parking ratios per area and per application.
- Parking should be provided sub-surface as far possible.
- Carports shall be located in such a manner that it is not visible from the street.



- Avoid sprawling parking lots adjacent to transits.
- Promote shared or joint parking and structured parking.



- Parking must be placed at the back of a building, away from the street.
- Soft landscaping must form part of open parking areas.
- One tree must be provided for every two parking spaces.
- Parking areas should be broken up in small parcels and spread over the site. A break of at least 5 m (soft landscaping or dwelling unit intruding and overlooking the space) should be established between two parking pockets.
- Provide safe and convenient access between car parking areas and pedestrian access to buildings.



## PHYSICAL BARRIERS AND CRIME PREVENTION

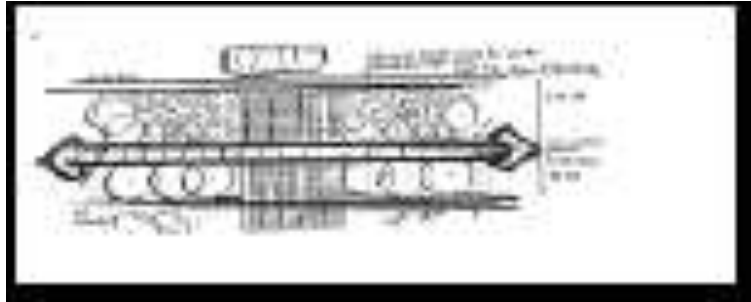
- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed.
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;
- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.



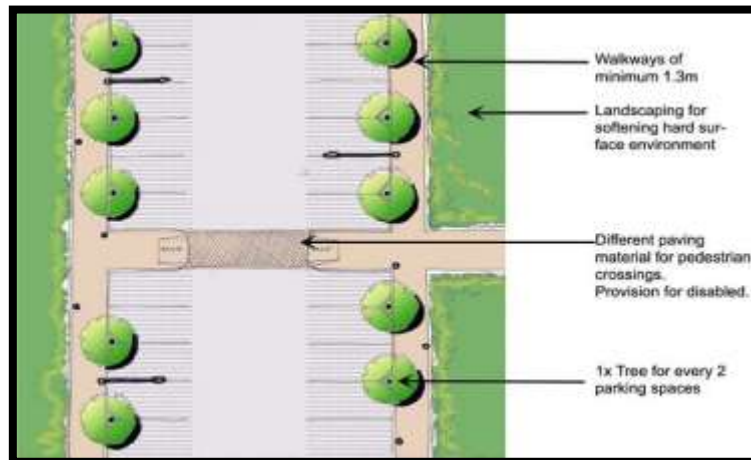
- All residential developments, albeit housing complexes or new neighbourhoods, should be designed according to the principles of crime prevention through environmental design.
- The “eyes on the street” concept must be applied.
- Maximise informal or passive surveillance of streets and other public open spaces while protecting the privacy of properties.
- Accentuate and identify building entrances by providing good visual and physical connections between the street and the lobby spaces.
- Property enclosures should be permeable to allow for visual surveillance onto and from the street.
- Use level changes, especially living areas and balcony spaces elevated above the street level, to allow views from residential units onto adjacent public spaces while controlling views into these units
- Use low-height, transparent or partially open fences to create an impression of openness and permeability. If the site is fenced in, a palisade fence should be used for at least 75% of the length of the site. Solid boundary walls should be placed where it is critical to provide for privacy or private outdoor spaces.

## LANDSCAPING

- Regionally indigenous landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces with adequate space for tree trunks and tree roots for healthy long term growth.
- Soft landscaping shall form part of parking areas.



## HERITAGE IMPACT

- Future developments within Region 1 must take cultural and heritage aspects into consideration if applicable. Historical structures older than 60 years are found within the Pretoria North.
- The conservation of cultural resources within the corridor is controlled by the National Heritage Resources Act, 1999 (Act 25 of 1999). In terms of the Act, structures and sites older than 60 years must be protected. Section 34(1) of the Act indicates that no person may demolish any structure or part thereof that is older than 60 years.

When making development decisions that affect heritage resources, one must:

- ensure that heritage resources are conserved in their authentic state as far as practically possible, to reflect their historical and cultural value;
- acknowledge the significance of scale when making conservation-related decisions and evaluating heritage resources within broader contexts;
- wherever appropriate, ensure that a place's character (tangible and intangible) is protected based on its context and scale (rather than protecting the character of individual sites and/or objects only);
- where possible, ensure that new developments in historic precincts are of an appropriate scale and in an appropriate architectural 'language' (massing, articulation and texture);
- ensure that signage, roadways, pavements, colonnades, open and green space design, landscaping and tree-planting respect the character of historic buildings and precincts, as far as practically possible;
- encourage investment in the adaptive reuse of historical sites, facilitate integration between the conservation and adaptive reuse of heritage buildings, and promote urban regeneration strategies; and
- discourage the demolition or inappropriate alteration of historical sites where there is a possibility that these can be retained and integrated into a new development without undermining the inclusive potential of the development. When assessing development applications, the creation of views of heritage sites where no general access is provided, must be encouraged.

Source: City of Cape Town, Municipal Spatial Development Framework (MSDF) Draft, 2017

## ADVERTISING

- Advertising must be as per Council policy and guidelines.

## HEALTH MEASUREMENTS

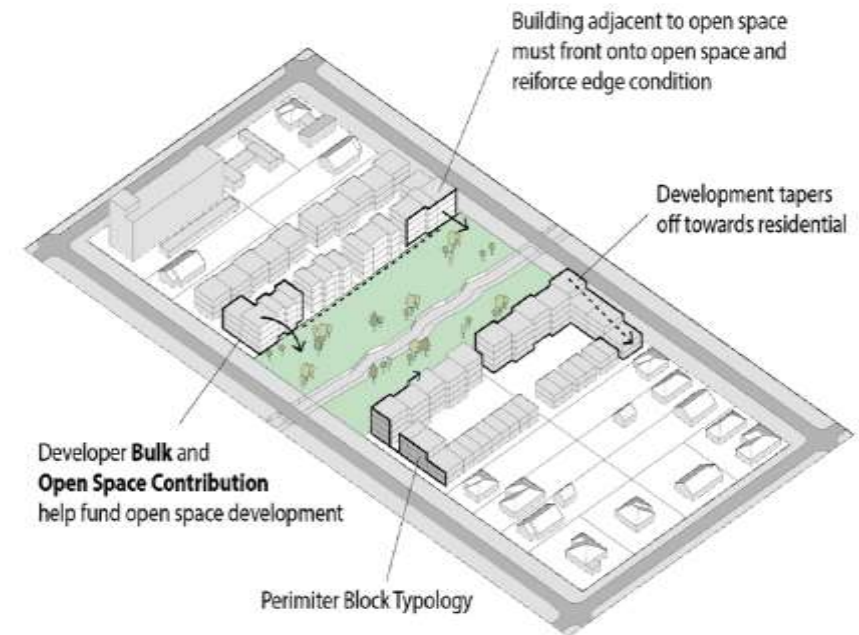
- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.
  - All refuse areas and service yards shall be screened off with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.

## URBAN OPEN SPACE AND INTERFACE GUIDELINES

The explicit purposes of the Urban Open Space Development Guidelines are:

- To enable urban (re)development to engage with and take relevant stewardship of adjacent open space;
- To increase the overall physical and spatial value and quality of both the development project and the surrounding urban landscape
- Improve interface edge conditions
- To increase inclusive public access to nearby open space and to the greater urban open space network
- To Improve or provide safe street crossings and improve street intersections
- To improve or provide walkable access to non-motorised transport (NMT) such as cycle lanes and pedestrian walkways
- To improve or provide adequate public lighting

Development adjacent to public open space must be oriented toward and engaged with the public open space. Buildings must support the definition of the public space through a continuous line of buildings on the boundaries of the linear space.

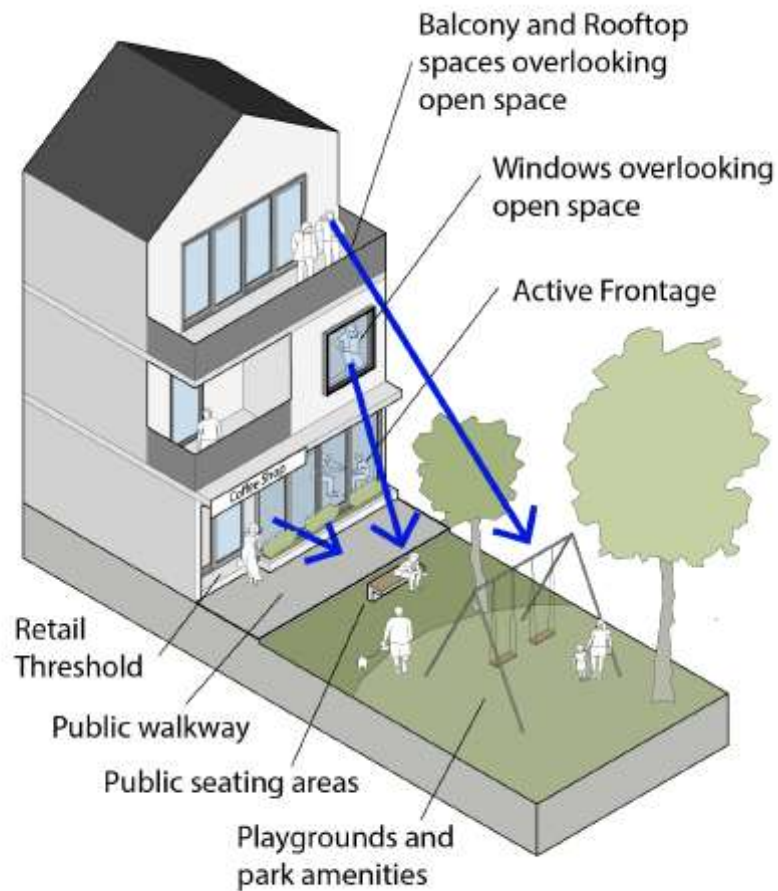


Source: Open Space Development Guidelines, PG Smit, C Davey, Dec 2017

Developments must also:

- improve legibility, accessibility, and activity on the periphery of the open space;
- provide edge conditions that support clear active articulate thresholds and access to open space;
- provide ample lighting; and
- have generous sightlines and avoid changes of grade that minimise sightlines.





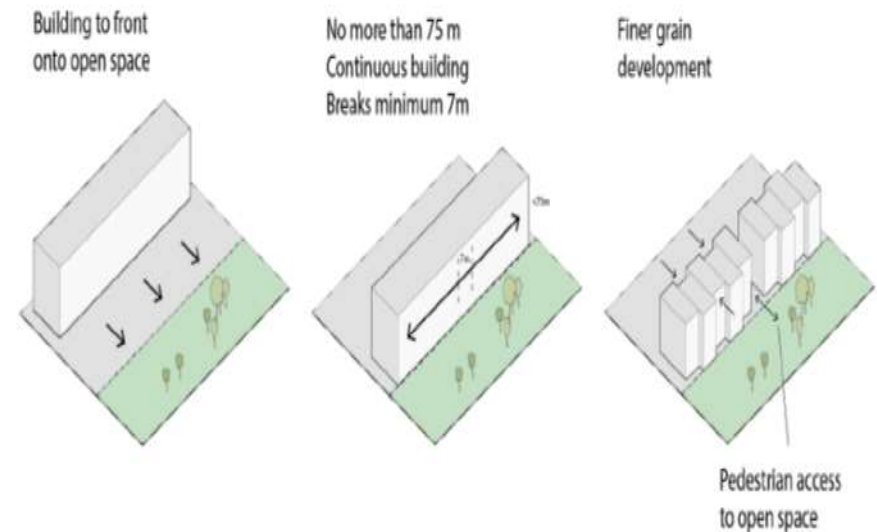
Source: Open Space Development Guidelines, PG Smit, C Davey, Dec 2017

Along longer, continuous boundaries facing open space, it is critical to maintain a finer grain development interface that will enhance pedestrian permeability to penetrate from the surrounding neighbourhoods through the strip development into the open space.

We must:

- Establish clear sightlines by the sensitive location of buildings and other site features;
- locate development to overlook open space and/or adjacent development;

- create building frontages that include a sense of activity;
- design pathways, underpasses and other spaces to minimise sudden changes of grade and blind corners;
- maximise the visibility of high risk areas such as car parks (public and employee), stairwells and underpasses; and
- design site layout so that pedestrian corridors and destination points are easily identified.



Source: Open Space Development Guidelines, PG Smit, C Davey, Dec 2017

## SUSTAINABLE NEIGHBOURHOOD DEVELOPMENT

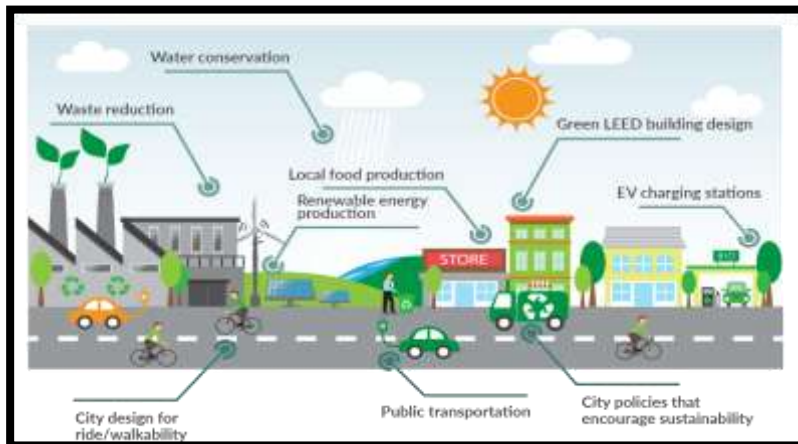
Climate change matters to Tshwane and the City of Tshwane is committed to addressing climate change by reducing carbon emissions and fighting climate impacts,

The City's role in C40 is part of a broader movement to encourage local governments to attend these annual meetings under the leadership of ICLEI (Local Governments for Sustainable Development) and C40 Cities for Climate Leadership (C40), so as to advance an overwhelming perspective that climate response cannot be managed by national governments only.



A **sustainable city**, or **eco-city** (also "ecocity") is a **city** designed with consideration of environmental impact. These **cities** are inhabited by people who are dedicated to minimising required inputs of energy, water, food, waste, output of heat, air pollution (CO<sub>2</sub>, methane), and water pollution.

**Spatial sustainability means** Sustainable patterns of consumption and production should be supported, and ways of living promoted that do not damage the natural environment. It is important to keep awareness of future impact of climate change in existing and future policies and plans of the City. Spatial sustainability also means that public space should be multi-functional space that includes sports and recreational facilities alongside habitats for biodiversity and other sustainable practices of resource preservation listed here.



While the practical application varies among disciplines, some common principles are the following:

### 1. Promote the use of green energy, buildings and infrastructure;



The municipality will become more resource-efficient, with low emissions, zero waste and conservation of agricultural land. All green and blue spaces will be harnessed for the provision of ecosystem services. Waste will be properly and almost fully recycled. The principles of sustainable urban drainage systems that ensures that water is captured and re-used must be practiced throughout the region.

### 2. Promote energy conservation in buildings.



Reduce the energy demand for heating and cooling through design. Provide more insulation, which reduces energy wastage by maximising heating and cooling. Design "tighter" buildings with less air leakage.

### 3. Promote the reduction of waste, and recycling on site level.



Developments should take recycling into account at the design phase and provide for adequate space on site.

#### 4. Promote alternative transportation and non-motorised transport.

The focus of transportation should be on the reduction of greenhouse gasses by reducing the need for vehicle ownership. Ensure efficient land-use and development by densifying urban areas to make communities more “walkable”. Encourage people to drive less by providing non-motorised transport facilities such as bike sharing, cycle infrastructure, cycle storage on site, showers and pedestrian-friendly environments in especially high-density areas. Promote efficient modes of transport such as public transport, non-motorised transport and green vehicles. Provide electric charging stations for electric cars and scooters. Further, it is important to promote various transportation options. The City will start with the establishment of car-free streets in certain nodal areas.

#### 5. Promote urban forestry and urban agriculture.



Designs should include urban greenery projects such as rooftop gardens, community gardens, sidewalk vegetable gardens, and fruit trees in the urban environment and public spaces. The urban heat island effect can be reduced by these measures. Encourage land owners to plant trees and other roadside greenery in order to reduce the heat island effect in the urban areas. The development of food security in urban areas will become important in the near future. For urban biodiversity protection and ecological functions to be present in urban systems, all open and green space should form an integrated network. Every development must take cognizance of surrounding development and connect to adjacent green and open space in some way. This network should be accessible to people and can contain a combination of recreational and sport facilities, food gardens, natural vegetation, remnant spaces and streets.

#### 6. Promote renewable energy



Increase the use of renewable energy resources and reduce dependence on carbon-based fuel resources, with the aim of reducing climate-change impacts.

Install off-the-grid energy-generating equipment (solar in Tshwane) and apply the green-building principles.

#### 7. Promote water conservation and water harvesting.

Water harvesting and storage will become more relevant to individual households and communities in the future. Building designs will have to incorporate water harvesting and storage in order to address food and water scarcity. Design for the recycling of grey water and rain water. Landscape plans must focus regionally indigenous species and those that require little water. The use of municipal water for gardening purposes in Tshwane will be discouraged in the future.





# Nodes and Corridors Map - Region 3





## 4.12 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa a fragmented spatial framework;
- Urban sprawl and dysfunctional urban form;
- Low densities mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid;
- Plan for compact cities and transport corridors;
- Compact cities – more infill and multi-story developments, mix of land uses;
- Densification must be public transport orientated - focus on commuter rail and BRT;
- Integrate land-use planning and transport planning;
- Reduce the need to travel;
- Public transport must be prioritised over private transport;
- Embrace BRT's, monorails, NMT, pedestrians;
- Disincentives private car usage – reduce the number of vehicles on the road.

Residential development within Region 3 should be guided by the principles contained in the Tshwane Compaction and Densification Strategy. The core principles of this strategy are:

- Densification must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way;
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration;
- Specific areas of opportunity or in need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified);
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process and 1.8 meter walkways must be provided on erf boundaries in these areas by

developers 1.8 meter walkways must be provided on erf boundaries in these areas by developers as per NMT priority map in this document.

- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Densities for social housing developments, old-age homes and retirement centres, hostels and boarding houses, student accommodation will be evaluated on their own merits where location and accessibility to social infrastructure will play an important role.

Another important underlying principle of the Tshwane Compaction and Densification Strategy is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Densification and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Densification proposals within Region 3 should therefore not be done for the sake of densification, but to achieve a range of other goals, such as :

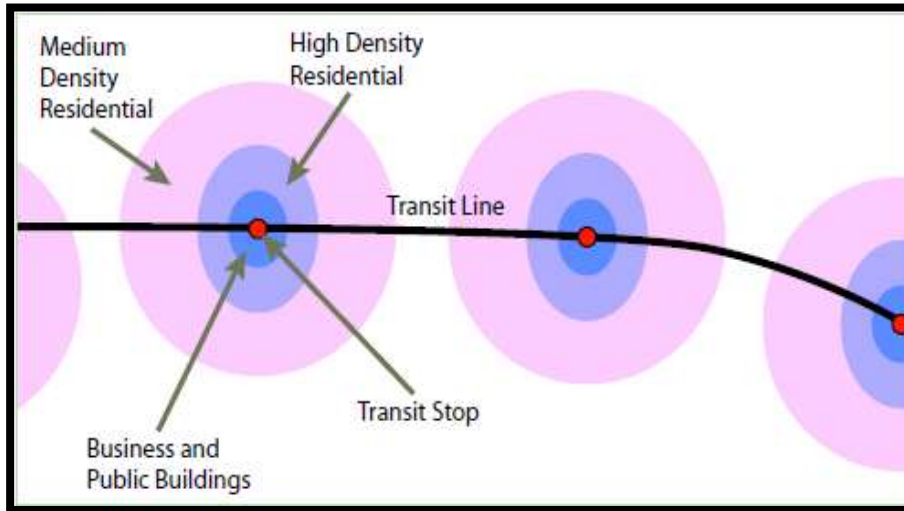
- increasing accessibility to public transport facilities;
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas;
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities);
- containing outward expansion of the urban footprint.

The benefits of densification and intensification:

- **Concentrations of people** in areas of high urban activity
  - Access of people to opportunity increase
  - Population threshold increases which means that a viable market for business and transport is established
  - Density is significant for the economic performance of a city

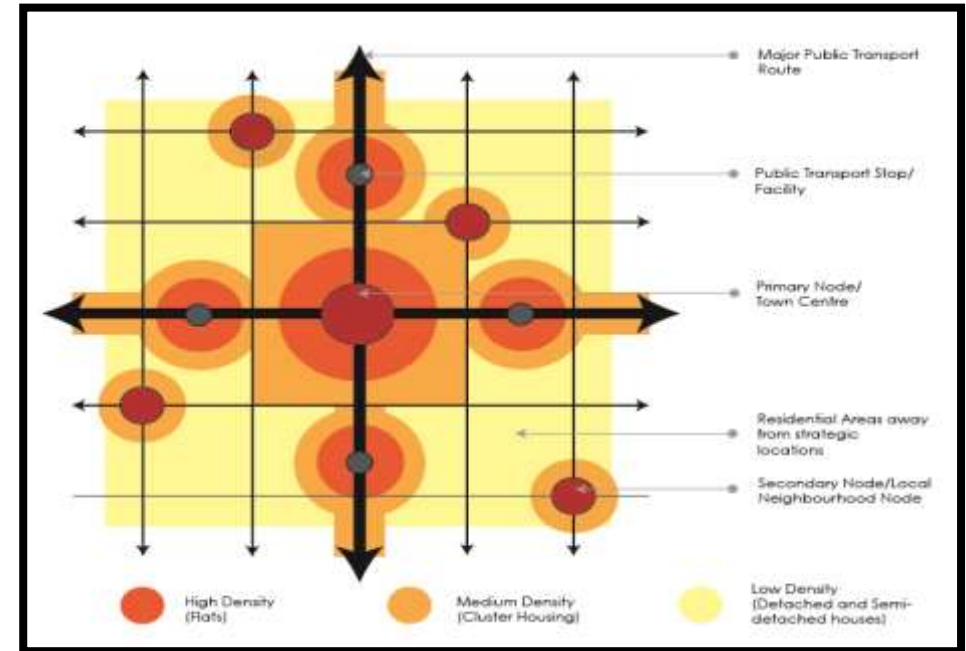
- **Urban efficiency**

- Travel distances and time
- Cost of engineering infrastructure
- Public transport becomes more viable
- High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones
- Low Density Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: shape of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications.

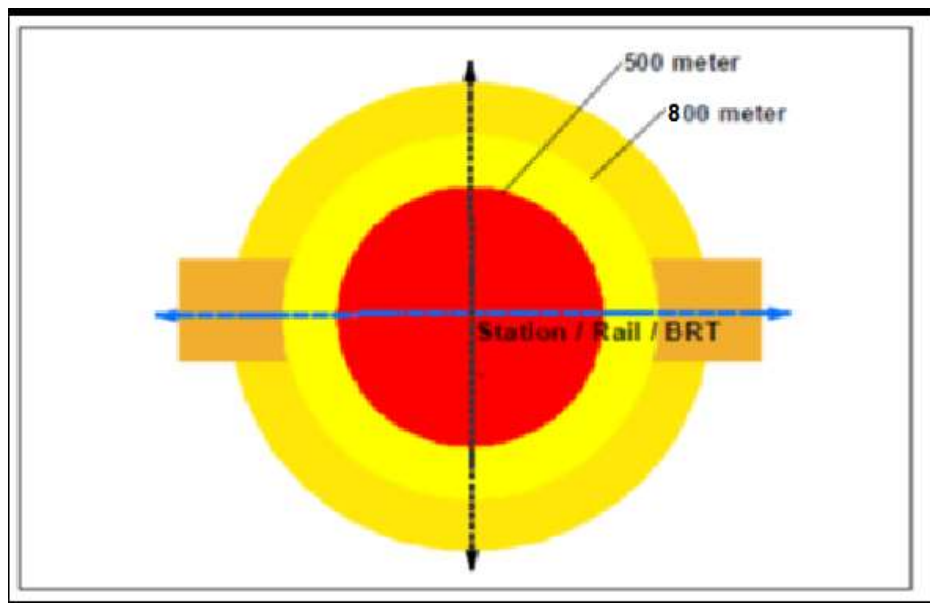
All densification applications should adhere to the above mentioned criteria and development guidelines as indicated in Paragraph 4.11.

#### 4.12.1 CONCENTRATION ZONES



The **Concentration Zones** are the primary focus areas for high density residential developments and are centred on nodes of metropolitan importance such as Metropolitan Nodes and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations. Density of + 200 units/ha will only be supported on properties adjacent to the trunk routes.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 800m walking radius of a railway station or a major public transport node.

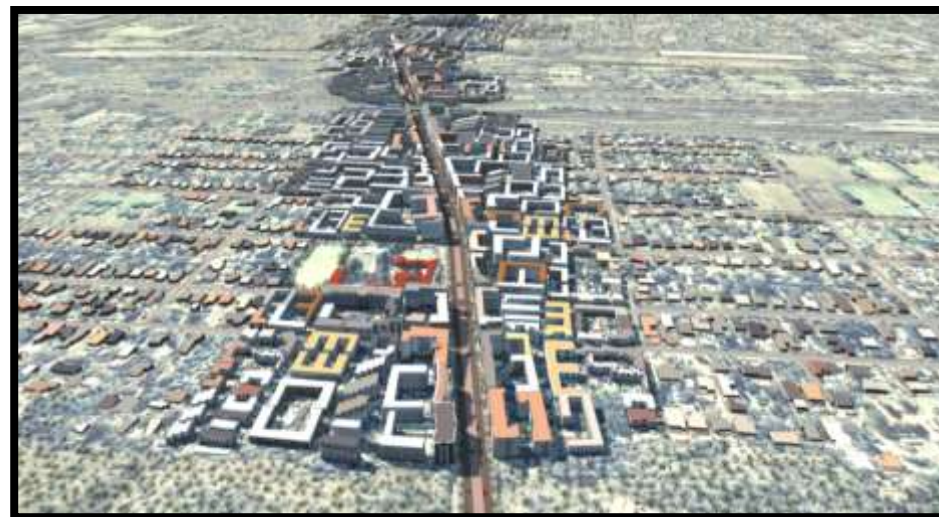


The areas around the existing PRASA railway stations in Metropolitan Nodes and urban core railway stations and around the proposed BRT/ITPN stations

have been earmarked for higher-density transit promotion zones. Densification should take place within a 800 m walking radius of a BRT / IPTN station. Densities in excess of 200 units/ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units/ha for the area between 500 m and 800 m. In terms of height a human scale must be achieved with buildings in the order of 6 to 8 stories parallel to the trunk route and tapering down from the trunk route into the residential area. The guidelines have been determined by National Treasury in terms of their urban Hub Design Toolkit. Funding of BRT lines and station are dependent on these guidelines. The walking distances will be determined by the distance between stations. The closer the stations are to one another the shorter the walking distances will be.



Source: City of Tshwane, City Planning and Development Department

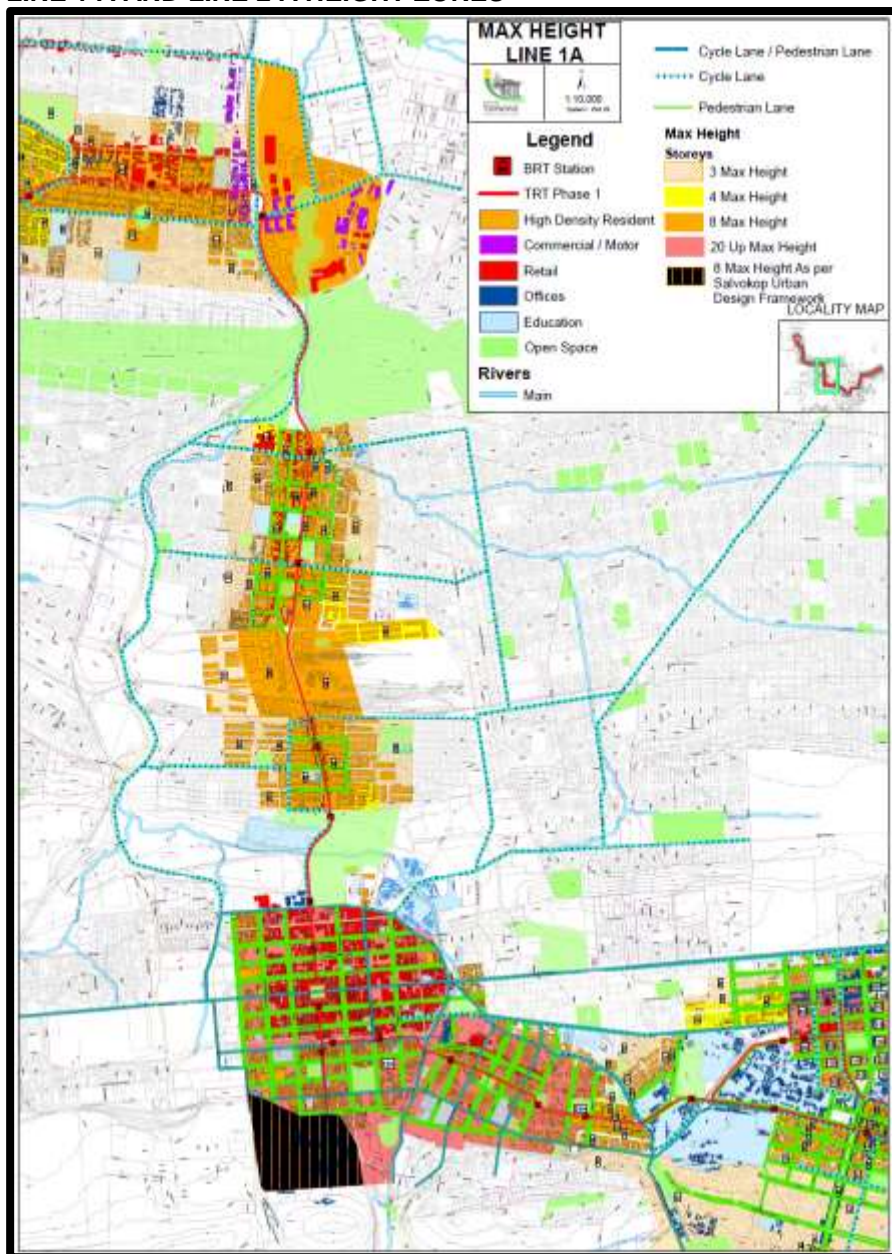


Line 1 A: Paul Kruger Trunk

Refer to Chapter 2 regarding the first phase of the BRT / ITPN trunk routes. The first phase Hatfield to CBD route (Line 2 A) as well as the second phase extension to Menlyn will be the focus of residential densification within Region 3.



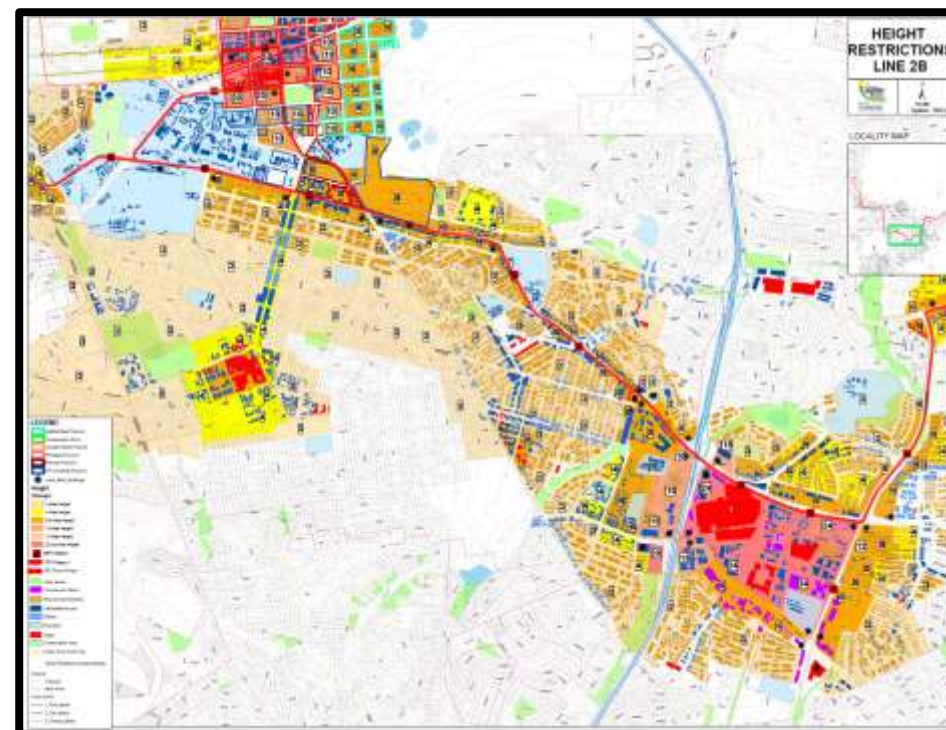
## LINE 1 A AND LINE 2 A HEIGHT ZONES



Typical BRT corridor densification around the BRT trunk routes along Paul Kruger, Mansfield, Nana Sita, Kotze, Lynnwood and Atterbury Road is shown above. The heights of up to eight storeys will only be supported on properties adjacent to and fronting the trunk route. Downscaling of height will be applicable from the trunk, moving away as indicated in the sketch below. Priority will be given to densification directly adjacent to the trunk route. In Region 3, the Line 1 A and 2 A and B corridor height plan will be regarded as the controlling guideline in terms of height along the said corridor.

The Concentration Zones and Linear Zones (see Paragraph 4.12.2) call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.

## LINE 2 B HEIGHT ZONES



**High Density Zones** in Region 3 are focussed on the Metropolitan Nodes and Urban Cores. These are the CBD, Hatfield, Menlyn and Brooklyn Metropolitan Nodes, as well as the Saulsville Urban Core.



Residential densification is proposed for the CBD and areas surrounding the Metropolitan Node areas. This includes the Brooklyn Node, Arcadia, Sunnyside, Hatfield, Menlyn Node and Saulsville. The High Density Zones are identified as areas which should be developed as medium to high residential developments. It is envisaged that these nodes will develop a whole range of activities on an intense scale.

In the Hatfield Metropolitan Node high density residential development in high rise apartment buildings are proposed around the Hatfield Gautrain Station and BRT stations. The detailed proposals should preferably include provision of hard open space and linkages to the existing open space hierarchy as illustrated on the development framework (see detail regarding densification proposals in Part 5).

High Density Zones in the west of the region are focussed on the Urban Cores where public transport infrastructure can be supported. In Pretoria (West) those parts of the existing residential precincts located north and south of WF Nkomo Street up to Luttig Street and Servaas Street are well served by public transport and can at the same time complement the various retail outlets along WF Nkomo Street and the mixed uses in Vom Hagen and Soutter Streets.

Around Schutte Street Station even further densification can be promoted. Typical housing typologies that can be supported will be medium rise apartment buildings mixed with stacked simplexes up to three storeys.


Areas of high intensity development is proposed at the Saulsville Station and around the other stations along the railway line further east, as well as in the area around the Attlyn Shopping Centre south of Kalafong Hospital and along Maunde Street in Atteridgeville. In Lotus Gardens a high density zone is envisaged around the former proposed town centre.

New Developments within Concentration Zones should preferably not be at densities of below 120 units per hectare.

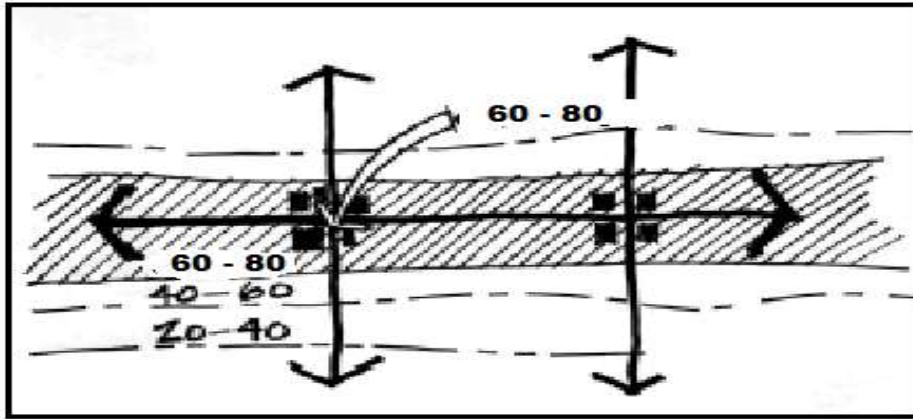


Existing and planned PRASA railway stations outside the Metropolitan Cores and Urban Cores will be regarded as densification areas. Densification should take place within an 800 m walking radius from a PRASA station. Densities of up to 200 units/ha around rail stations will be applicable for the first 500 m walking distance and up to 120 units/ha for the area between 500 m and 800 m. Only two- to three-storey developments (walk-ups) are envisaged for these areas around rail stations.

#### 4.12.2 LINEAR ZONES (CORRIDORS AND SPINES)

 (Up to more or less 200 m walking distance from public transport: density up to 80 units/ha)

For the purpose of densification, Linear Zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Concentration Zones and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The Linear Zones also connect the nodal areas within the city with one another.



The identification of these Linear Zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, Linear Zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport. The average density supported around linear zones will be in the order of 80 /ha as prescribed in the Tshwane Compaction and Densification Strategy.

In terms of the densification strategy, Linear Zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport. Parts of major routes such as, Justice Mahomed Street, Brooklyn Road, Jan Shoba Street, Duxbury Road, Middel Street, George Storrar Drive, Dely Road, Garstfontein Road, Stanza Bopape Street, Park Street, Codonia Avenue, Baviaanspoort Road and Florence Ribeiro Avenue are regarded as linear densification zones. Typical housing typologies that will be appropriate along these routes will be medium rise apartment buildings, walk-ups and duplex residential developments. Densification of up to of 80 units per hectare in accordance with the Compaction and Densification Strategy should be promoted on merit along these routes, taking into account the existing urban fabric and local character of the area, design, unit sizes and erf sizes, as well as access.

Within the western part of the region, WF Nkomo Street and Maunde Street are regarded as linear densification zones.

In future the westward extension of Staatsartillery Road will be a very important east-west arterial link along which higher densities should be promoted. Different housing typologies should be supported with the emphasis on 3 storeys and higher.

To promote public transport in the western part of the region, densification will be restricted to these three routes on the short to medium term. Densities of up to 80 units per hectare should be promoted along these routes.

The proposed K16 should be seen as a linear densification zone. Typical housing typologies that will be appropriate along these routes will be medium to low-rise apartment buildings, walk-ups and duplex residential developments.

Steve Biko Road / Johan Heyns Drive and Van der Hoff Road are Linear Zones that should accommodate housing typologies ranging from medium to low-rise apartment buildings, walk-ups and duplex residential developments.

#### 4.12.3 SUBURBAN DENSIFICATION ZONES

 (Density 25 units/ha)

Suburban Densification Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the CBD). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The density in these areas will be restricted to a maximum 25 dwelling units per hectare.



The exceptions will be the nodal/core areas (as indicated on the densification map by a black circle) within the suburban areas where densities of up to 200 dwelling-units per hectare can be supported, depending on available public transport and social amenities. The average density supported around suburban nodes will be in the order of 80 /ha as prescribed in the Tshwane Compaction and Densification Strategy



Activity streets in suburban areas as indicated in the RSDF are also earmarked for densification up to 80 units per hectare.

Whereas the Concentration and Linear Zones propose a particular urban environment, both the Suburban Densification Zones and the Low Density Zones are distinctly suburban zones.

Within Suburban Densification Zones the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people;
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration;
- Specific areas of opportunity or in need of restructuring should be identified (areas that should not be densified for specific reasons should also be identified);
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment;
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process and 1.8 meter walkways must be provided on erf boundaries in these areas by developers as per NMT priority map in this document;
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase; Other related uses such as schools, crèches and places of instruction must be accommodated in these areas as densification takes place.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas;

- Encourage community and stakeholder collaboration;
- Retain, enhance and encourage cultural assets.

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans. Sustainable neighbourhood planning seeks to achieve long-term socially, environmentally and economically viable communities. The main objective is to create pleasant, safe and sustainable residential neighbourhoods with a mix of residential typologies, community and social facilities, recreation areas such as parks, sports fields and playgrounds, access to public transport for those who need it, and local economic opportunities.

*“A successful and sustainable neighbourhood is a product of the distances people have to walk to access daily facilities, the presence of a sufficient range of such facilities to support their needs, and places and spaces where a variety of activities can take place.”<sup>1</sup>*

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas. Greenfields development (farm portions and small holdings) will be considered on merit and the general principles of densification will apply. The maximum density be in the order of 80 /ha as prescribed in the Tshwane Compaction and Densification Strategy will be supported within a 25 km radius of the City CBD. Previously disadvantaged areas will mostly have densities of more than 25/ha and that would remain applicable. New layouts in these areas will be evaluated in terms of the standard principles of densification.

<sup>1</sup> Source: Homes and Communities Agency: Urban Design Compendium 1



#### 4.12.4 LOW DENSITY ZONES



(up to 10 units/ha)

Low Density Zones are so called because they are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances. The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas.

The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. It includes areas along ridges where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas. Ideally, in a Low Density Zone the density should not exceed 10 dwelling-units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

The following areas within Region 3 have been identified as Low Density Zones, i.e. erven where a density of less than 10 units per hectare shall prevail:

- Erven directly adjacent to undeveloped ridge areas, as indicated on the densification map based on the C-Plan.
- In the Magaliesberg Natural Protected Area, one dwelling-unit per 1000 m<sup>2</sup>;
- North of Breyer Avenue in Waverley;
- Other ridges as indicated on the density map.

In terms of the Compaction and Densification Strategy Lukasrand, Muckleneuk and Groenkloof are more sensitive ridge areas and are earmarked as Low Density Zones.

#### 4.12.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and more will be allowed in areas with Council approved piped water. Divisions of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Proposed divisions must take flood lines and water courses into account when application is made.

Notation	Size	Services
	5000 m <sup>2</sup> (No second dwelling unit allowed)	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water



## 4.13 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above-mentioned Tshwane Compaction and Densification Strategy. Such settlements should be developed within Concentration Zones and along Linear Zones with the supporting densities as prescribed. Further human settlements should be provided in close proximity to social amenities and public transport.

### 4.13.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 3 about 64 000 informal units exist and need basic services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated.
- Informal settlements should only be relocated to areas that are geotechnically sound and do not fall within a flood line area.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning.

**The approved IDP contain the strategic context within which the 2017/21 IDP has been developed and contain five strategic pillars which is guiding the focus for the 5 year term.** Pillar 2: A City that cares for residents and promotes inclusivity spesifilly relates to informal sellelments.

#### Priority 6: Upgrading of informal settlements

Too many communities in Tshwane do not have access to quality basic services and live in underdeveloped areas. Residents in many informal settlements still only have access to rudimentary water and sanitation services, infrequent refuse removal and area cleaning, and do not benefit from adequate infrastructure upgrades.



Source: City of Cape Town

The City aims to address this as a matter of priority in a systematic way as a redress initiative. Tshwane currently has 173 informal settlements, most of which have no access to or receive rudimentary basic services. This is wholly unacceptable. The City will prioritise the upgrading of services delivered to informal settlements in order to improve the quality of life of those residents. The City will upgrade informal settlements by:

#### Action 1: Mainstreaming services to informal settlements

- Conducting an audit of service delivery standards in all informal settlements;
- Introducing a number of basic service delivery relief measures in unserved informal settlements, including access to sanitation measures where none are available, weekly door-to-door refuse removal and regular area cleaning;
- Prioritising the roll-out of site and service upgrades on a systematic basis;
- Aiming to meet national service standards in informal areas;
- Increasing access to clean and safe drinking water;
- Improving access to the electricity grid;

- Servicing rudimentary sanitation services more regularly and aiming to systematically expand and upgrade sanitation services across informal settlements;
- Performing weekly door-to-door refuse removal services and conducting regular area cleaning;
- Addressing the vulnerability of residents to crime and disaster (unpacked under the Safe City section); and
- Establishing a back-yarder programme in townships and informal settlements to serve more residents with basic services in a denser area.

**Action 2: Addressing the spatial development challenges of informal settlements to improve quality of life**

- Exploring re-blocking initiatives by partnering with civil society and community groups in informal areas;
- Working towards upgrading the road network in informal areas; and
- Creating safe public spaces in informal areas for recreational activities.



Source: City of Cape Town

#### 4.13.2 SOCIAL HOUSING

In the provision of social housing the following aims should be promoted:

- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring;
- Housing typologies should allow for diversity and significantly higher density than the current densities;
- Densification in order to address the green economy of spatial planning;
- Brownfields development is preferable to greenfields development in order to achieve infill development;

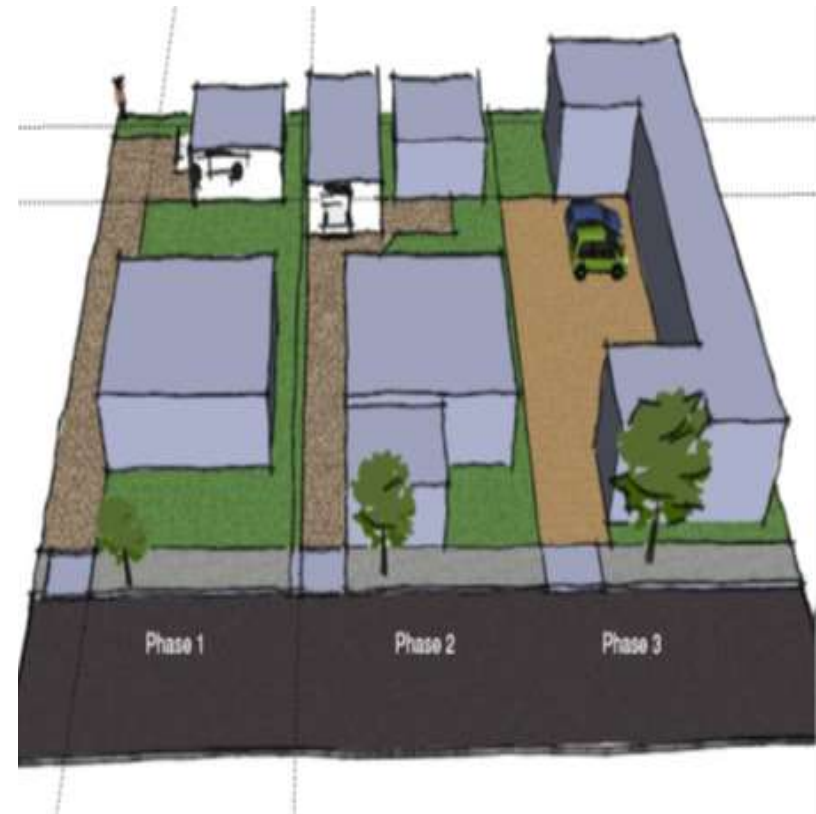


Social Housing proposal in the inner city

- Compaction and rejuvenation of decaying areas (where applicable);
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily urban cores;
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists;
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area;
- Urban design, landscaping and streetscaping should be incorporated in housing schemes;

- Social housing should be an effective component of sustainable human settlements, i.e. providing or being located close to social amenities and facilities;
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transport-orientated development and providing a sustainable living environment.
- Ensure that residential development (both affordable and otherwise) creates sustainable neighbourhoods rather than just housing project areas;
- Focus on the provision of affordable housing in accessible, spatially and functionally integrated locations rather than creating free-standing peripheral islands of housing;
- Have a coherent and targeted approach to the upgrading, formalisation or relocation of informal settlements.
- Promote incremental upgrading (where possible, in-situ) as a major complementary housing programme, in line with Part 3 of the National Housing Code
- The provision of activity streets in all new residential township layouts and the provision of the necessary rights along the activity streets in the proposed layouts.
- Promote incremental upgrading of activity streets by means of NMT development.
- In order to stimulate the township economy, formalisation of legitimise enterprises will be one of the top priorities for City.
- Alignment of residential developments within transport nodes in all new township layouts.
- “Shifting settlement patterns should be investigated to align public investment in infrastructure and services with these trends, and to develop appropriate systems of land tenure and growth management. Special attention must be given to areas of densification along transport corridors within previous homelands”. – NDP

The sketch below shows an example of the redevelopment from a single residential site to a more compact high residential area. The principles here is linked to the promotion of higher density residential and also mixed use (TOD principles) whereas the guideline is to gradually allow the redevelopment to achieve the desired form.



Movement and Connectivity – see Paragraph 2.4 for more information on this and transport orientated development. Transport orientated development supports the concept of the “20 Minute Neighbourhood” where all urban facilities and services can be reached within a 20 minute travelling period.



# Region 3 - Density Map



## LEGEND

### Density

- Tiered Zone
- 300m Walking Distance (200 Ha)
- 300m Walking Distance (100 Ha)
- Low Density Zone
- High Density
- Suburban Density
- Low Density Zone
- Local Nodes
- Transport Corridor Development
- Transport Corridor (BRT phase 1)
- Future BRT Routes

### Rural Density Group

- 3000 Ha
- 1 Ha
- 2 Ha
- 4 Ha to 1 Ha
- 8.5 Ha
- 50 Ha
- 100 Ha

### Land-Use

- City
- Mixed Uses
- Office
- Airport
- Compass
- Future Nodes
- Future Regional Gateway
- Industrial
- Retail
- Recreational
- Mining

- Water Street (Development Edge)
- Urban Edge 2017
- CBD 25 km Radius
- Landfill
- Future Development Area

### CBA Categories

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Protected Area (Former)
- Community Service Centres
- Human Settlement
- Proposed Rural Service Centres
- Proposed RDP (N)
- Railways
- Proposed Railways
- Proposed Stations

### Highways

- Existing
- Proposed
- Mobility Spine
- Existing
- Proposed
- Mobility Road
- Existing
- Proposed
- Activity Spine
- Existing
- Proposed
- Activity Street
- Existing
- Proposed

### Roads Masterplan

- A1 Class 1, Primary metropolitan distributor
- U2 Class 2, Metropolitan distributor
- U3 Class 3, District distributor
- U4 Class 4, District distributor
- U4 Class 4b, Collector (non-residential)
- Class 5a, Local street (non-residential)
- Class 5b, Local street (residential)
- Class 6, Local street (residential)
- Class 7, Local street (residential)
- Class 8, Local street (residential)
- Class 9, Local street (residential)
- Class 10, Local street (residential)
- Class 11, Local street (residential)
- Class 12, Local street (residential)
- Class 13, Local street (residential)
- Class 14, Local street (residential)
- Class 15, Local street (residential)
- Class 16, Local street (residential)
- Class 17, Local street (residential)
- Class 18, Local street (residential)
- Class 19, Local street (residential)
- Class 20, Local street (residential)
- Class 21, Local street (residential)
- Class 22, Local street (residential)
- Class 23, Local street (residential)
- Class 24, Local street (residential)
- Class 25, Local street (residential)
- Class 26, Local street (residential)
- Class 27, Local street (residential)
- Class 28, Local street (residential)
- Class 29, Local street (residential)
- Class 30, Local street (residential)
- Class 31, Local street (residential)
- Class 32, Local street (residential)
- Class 33, Local street (residential)
- Class 34, Local street (residential)
- Class 35, Local street (residential)
- Class 36, Local street (residential)
- Class 37, Local street (residential)
- Class 38, Local street (residential)
- Class 39, Local street (residential)
- Class 40, Local street (residential)
- Class 41, Local street (residential)
- Class 42, Local street (residential)
- Class 43, Local street (residential)
- Class 44, Local street (residential)
- Class 45, Local street (residential)
- Class 46, Local street (residential)
- Class 47, Local street (residential)
- Class 48, Local street (residential)
- Class 49, Local street (residential)
- Class 50, Local street (residential)
- Class 51, Local street (residential)
- Class 52, Local street (residential)
- Class 53, Local street (residential)
- Class 54, Local street (residential)
- Class 55, Local street (residential)
- Class 56, Local street (residential)
- Class 57, Local street (residential)
- Class 58, Local street (residential)
- Class 59, Local street (residential)
- Class 60, Local street (residential)
- Class 61, Local street (residential)
- Class 62, Local street (residential)
- Class 63, Local street (residential)
- Class 64, Local street (residential)
- Class 65, Local street (residential)
- Class 66, Local street (residential)
- Class 67, Local street (residential)
- Class 68, Local street (residential)
- Class 69, Local street (residential)
- Class 70, Local street (residential)
- Class 71, Local street (residential)
- Class 72, Local street (residential)
- Class 73, Local street (residential)
- Class 74, Local street (residential)
- Class 75, Local street (residential)
- Class 76, Local street (residential)
- Class 77, Local street (residential)
- Class 78, Local street (residential)
- Class 79, Local street (residential)
- Class 80, Local street (residential)
- Class 81, Local street (residential)
- Class 82, Local street (residential)
- Class 83, Local street (residential)
- Class 84, Local street (residential)
- Class 85, Local street (residential)
- Class 86, Local street (residential)
- Class 87, Local street (residential)
- Class 88, Local street (residential)
- Class 89, Local street (residential)
- Class 90, Local street (residential)
- Class 91, Local street (residential)
- Class 92, Local street (residential)
- Class 93, Local street (residential)
- Class 94, Local street (residential)
- Class 95, Local street (residential)
- Class 96, Local street (residential)
- Class 97, Local street (residential)
- Class 98, Local street (residential)
- Class 99, Local street (residential)
- Class 100, Local street (residential)



## 4.14 MOVEMENT SYSTEM

During the development of the RSDF's the spatial location of proposed land-uses is considered. It is essential that the transportation network and services can support the land-use proposals. Therefore a strategic assessment of the transportation needs was undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

### 4.14.1 Highway Planning Projects of a Strategic Nature

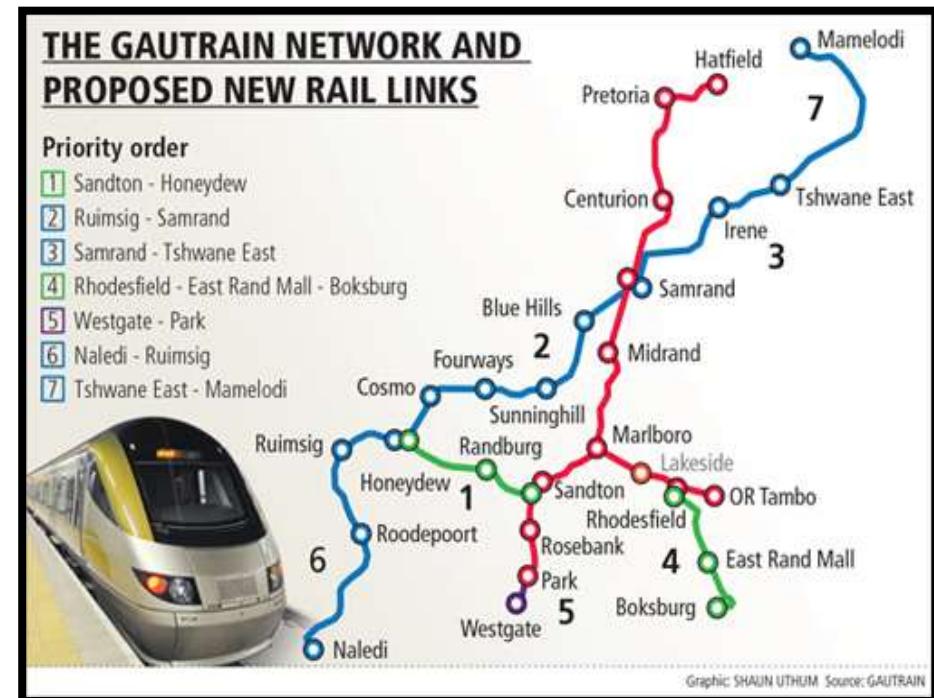
There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In Region 3 the following strategic projects are indicated:

- The highest priority for implementation in Region 3 is the construction of the PWV-9 bypass west of the city along the so-called MDCD corridor. The PWV-9 forms the backbone of the MDCD corridor. It is considered as an important public transport corridor linking low income areas in the north with the southern sections of Tshwane and the rest of Gauteng. The development of the Zone of Choice to its full potential will also rely heavily on the construction of the PWV-9 in the west of the City. The PWV-9 road would complete the "ring road" freeway around Tshwane and improve the accessibility to the regions north of Tshwane from Johannesburg. It would also open up the western areas in the city for further development and opportunities.
- The extension of Nelson Mandela Drive (M3) from Edmond Street to Soutpansberg Road.
- A priority road project in terms of the Integrated Transport Plan (ITP) is the Fountains Phase 3 (grade separation).
- Doubling Stanza Bopape Street across the railway line in Colbyn Valley (also listed in the ITP).
- The Hatfield one-way system (listed in the ITP).
- The proposed K16 through the Moot area is a fundamental east-west link which will alleviate congestion on lower order roads, make strategic land parcels like the Transnet land in Capital Park more accessible and form a catalyst for development.

## 4.14.2 Rail

### Gautrain

Gautrain serves Region 3 via the Pretoria Station and the Hatfield Station, which integrates with the existing Metro rail system. Metrorail serves the area well. The integration of these systems is important to ensure an integrated public transport system. The re-evaluation and restructuring of the passenger rail system in Tshwane is a priority. This relates closely to the introduction of the Gautrain and the integration thereof within the CoT public transport network. The Gautrain has provincial significance and could specifically contribute to the functionality of the Region if the line is extended to Menlyn and Mamelodi. Further studies are needed in this regard.



## Passenger Rail Agency of South Africa (PRASA) network planning proposals



PRASA priority corridor in the next 2 years in Gauteng is the Mabopane Johannesburg/Soweto line. The proposal includes upgrading of the capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.

The focus of future residential development in the western part of the region is north of the Saulsville railway line and the former N4, therefore the accessibility of the stations in this area needs to be improved from the north. Three stations currently serve the area, namely Saulsville, Atteridgeville and Kalafong. Several more stations serve the Pretoria West area up to Pretoria Station in the CBD.

### 4.14.3 Road network

- The road network is well-developed in the region.
- The extension of Nelson Mandela Drive to the Steve Biko Academic Hospital area is supported.

- The accessibility of the stations in the western most parts from the north by road must be improved.
- The upgrading of WF Nkomo Street between the CBD and Atteridgeville is supported.
- The construction of the PWV9 will improve north-south mobility and provide opportunities in the western side of the Region. It is thus supported and considered a priority in this region.
- The extension of Staatsartillerie Road from Strachan Road to Anthesis Street in Lotus Gardens is another priority in the west.
- In the very long term the PWV-7, a north-south freeway to the west of Atteridgeville, is planned. This planning is supported.
- There are a number of north-south routes in the region, including E'skia Mphahlele Drive, Steve Biko Road, Paul Kruger Street and Bremer Street. The mobility function along these routes needs to be protected.
- The introduction of a link between Hotel Street and South Street across the University of Pretoria land in Hatfield must be considered. The RSDF proposes significant densification of the CSIR grounds. This link could provide for much needed additional linkage across the N1 and could contribute to densification. The accessibility of Hatfield would be greatly enhanced.

### 4.14.4 Bus Rapid Transit (IRPTN System)

The City's Tshwane Rapid Transit (TRT) makes up a substantial portion of the total IRPTN. The modes of choice for the TRT is Bus Rapid Transit (BRT). Currently, two TRT trunk routes are operational; one between Pretoria CBD and Hatfield, and the other between Pretoria CBD and Rainbow Junction. The City plans to have six TRT trunk lines operational by 2028, accompanied by complementary and feeder systems.

#### Vision and Objectives

Tshwane's residents depend upon the efficient provision of public transport services to fulfil their daily mobility needs. The integration of the different rail, bus, minibus, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

The overall goal of this initiative is to improve the quality of life for the city's residents through the provision of an integrated public transport network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.

### TRT Operational Roll Out

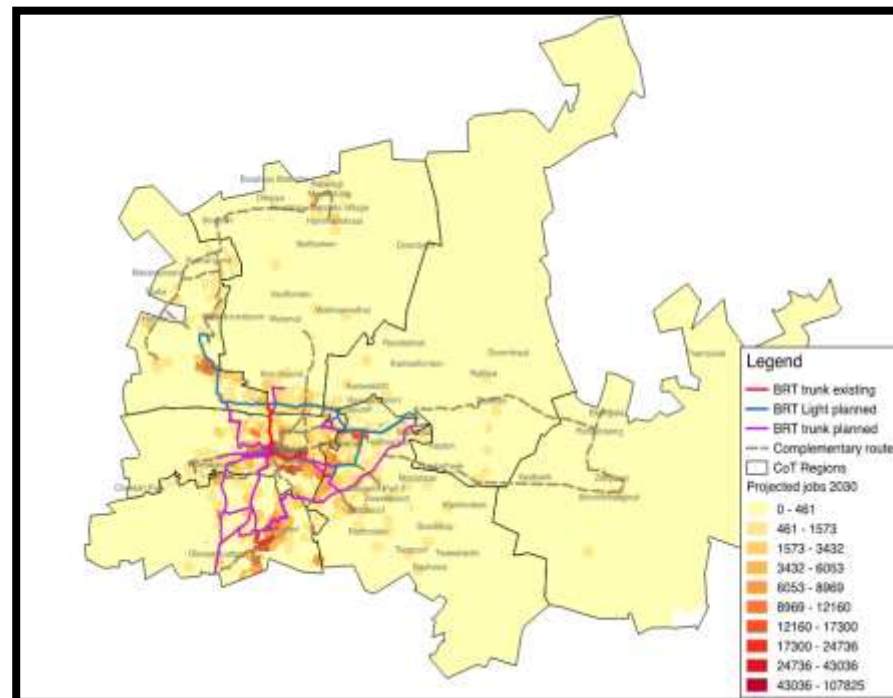


### Phased Implementation

The development of the full integrated network will take place over a series of phases, in order to match the available resources for planning, financial, and construction. In addition to the full implementation of the Priority Rail Network, the following corridors are recommended for

development of trunk and or other road services in terms of the 2017 /2021 IDP. See Details in Chapter 2.

Integration Zone 3 as identified 2017 /2021 IDP is located along BRT line 1B and line 1C which runs from Rainbow Junction to Akasia and Akasia to Kopanong respectively. In effect, it links the Emerging Node of Kopanong with the Metropolitan Node of Akasia and terminates in Rainbow Junction which becomes the terminus to other important nodes in the City.

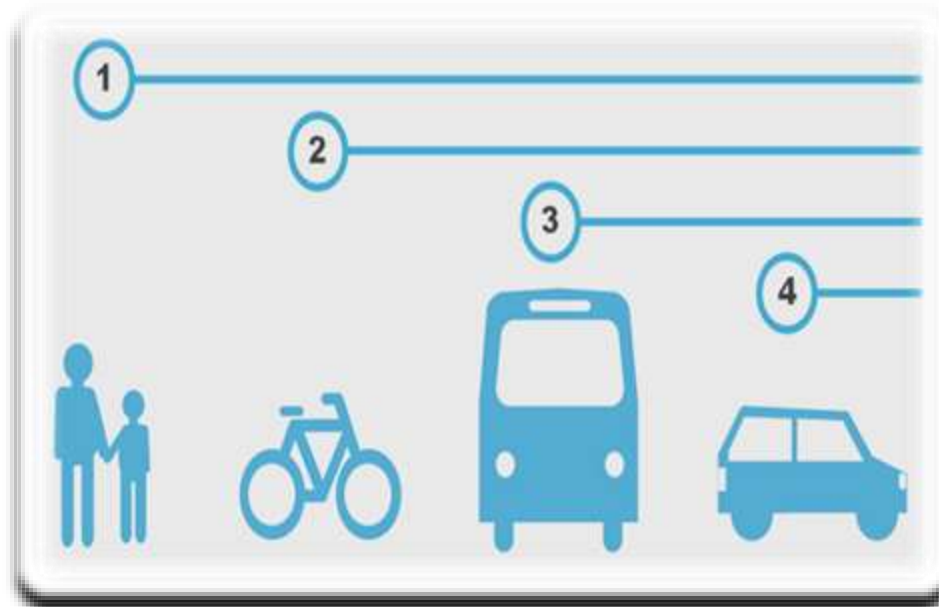




INFRASTRUCTURE CONSTRUCTION PHASING	CONSTRUCTION AREA DESCRIPTION	BRT LINE	CONSTRUCTION START DATE	SIGNIFICANT CONSTRUCTION COMPLETION DATE	'GO LIVE' DATE
Phase 1A	PRETORIA CENTRAL (Paul Kruger Street) to Hatfield	BRT Line 2A	January 2013	Completed	Nov 2014
Phase 1B	Mayville to Hatfield via PRETORIA CENTRAL	BRT Line 1A	April 2013	Completed	Quarter 2 (2016/17)
Phase 1C	Wonderboom (Rainbow Junction) to Mayville	BRT Line 1A	September 2014	Completed	Quarter 2 (2016/17)
Phase 1D	Hatfield to Menlyn	BRT Line 2B	November 2016	October 2018	Quarter 3 (2018/19)
Phase 1E	Menlyn to Denneboom Station	BRT Line 2C	November 2016	May 2018	Quarter 3 (2018/19)
Phase 1F	Rainbow Junction to Akasia	BRT Line 1B	June 2018	August 2019	Quarter 2 (2019/20)
Phase 1G	Akasia to Kopanong	BRT Line 1C	June 2018	August 2019	Quarter 2 (2019/20)
Phase 1H	CBD to Atteridgeville	BRT Line 3	October 2018	March 2020	Quarter 4 (2019/20)
Phase 1I	Denneboom to Mahube Valley	BRT Line 2D	November 2019	April 2021	Quarter 4 (2020/21)
Phase 1 (of Phase 2 Network)	Denneboom to Rainbow Junction	BRT Line 4	July 2021 (2 years)	June 2023	Quarter 2 (2023/24)
Phase 2A (of Phase 2 Network)	Mahube Valley to Garsfontein	BRT Line 5A	July 2023 (1 year 6 months)	December 2024	Quarter 4 (2024/25)
Phase 2B (of Phase 2 Network)	Menlyn (Atterbury Road[M11]) to Garsfontein (Solomon Mahlangu Road [M10])	BRT Line 11	October 2024 (9 months)	June 2025	Quarter 1 (2025/26)
Phase 2C (of Phase 2 Network)	Garsfontein (Solomon Mahlangu Road [M10]) to Centurion CBD	BRT Line 5B	April 2025 (1 year 9 months)	December 2026	Quarter 4 (2026/27)
Phase 3 (of Phase 2 Network)	Pretoria CBD (Pretoria Station) to Olivenhoutbosch	BRT Line 6	January 2027 (1 year 6 months)	June 2028	Quarter 2 (2028/29)

#### 4.14.5 NMT AND UNIVERSAL ACCESS

In terms of the Gauteng 25 Year Integrated Transport Master Plan as approved in 2014 none motorised transport must be prioritized in terms of transport planning. Pedestrians are seen as priority 1 and cyclist as priority 2. Public transport is seen as priority 3 and private cars as the least important.



In terms of the Tshwane CIPT 2016 the following principles are applicable to NMT within the BRT / IRPT corridor. The principles as set out in the TSHWANE RAPID TRANSIT (TRT): SPATIAL DEVELOPMENT POLICY: DENSIFICATION AND INTENSIFICATION GUIDELINES as approved by Council on 27 March 2014 will be applicable along Line 1 A and Line 2 A and B.

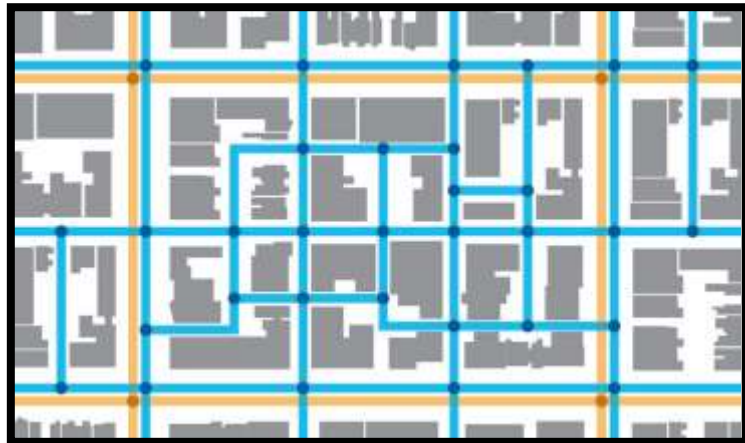
- NMT (pedestrian & cycle) routes to be provided to all trunk and feeder stations, up to a maximum distance of 2km.
- Upgrading/construction of routes to be to Universal Access standards.



- Bicycle facilities (bike racks) to be provided at stations.
- Prioritise pedestrian and bicycle movement over motor vehicle movement.
- No-motorised transport planning must be incorporated in all planning along the IRPTN route and future developments.
- Parts of the routes be declared car-free on Sundays and people come out in their masses and cycle and walk through the city for recreation.
- Provide effective pedestrian and bicycle access.
- Pedestrian and cycle access must be independent from vehicle access.

The design goals of the NMT and universal access in Region 3 are as follows:

- Continuous and Barrier-free
- Safe (separate pedestrians and cyclists from vehicular movement)
- Secure at-grade crossings
- Routes should be easily navigable and legible.
- Easily navigable/ legible and in terms of universal access.
- Designed for the local climate (all-season design)
- Increase pedestrian permeability into and through high density precincts.



- To promote human scale, pedestrian friendly developments
- Upgrading/construction of routes to be to Universal Access standards.

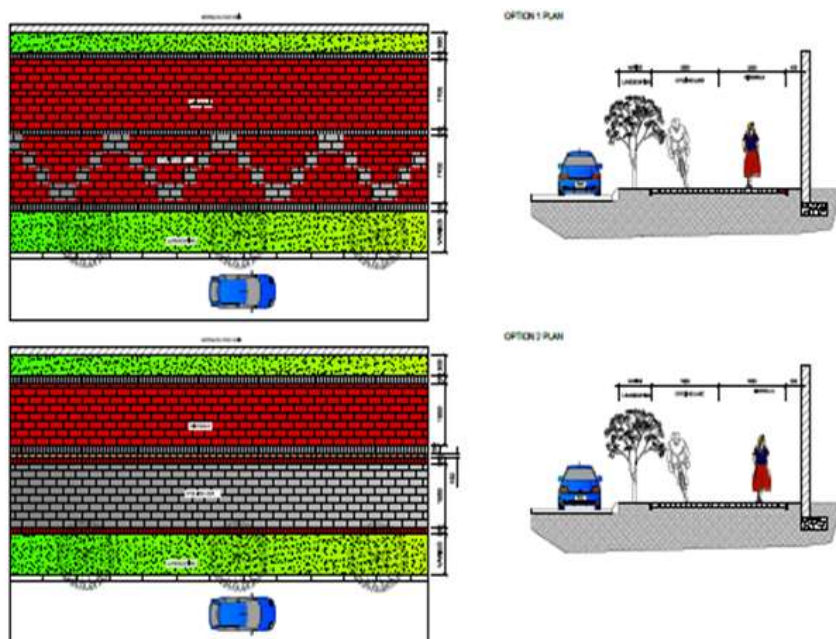


- Designed for the local climate (all-season design)
- To promote human scale, pedestrian friendly developments
- Upgrading/construction of routes to be to Universal Access standards.
- Developers need to provide walkways as specified and agreed with the City and need to submit a walkway application to the City Transport Department Way leave office.

Any person who submits a land development application shall address provision of public transport and non-motorised transport in accordance with the standards, specifications and requirements, of the City. In evaluating a transport impact assessment or public transport assessment in terms of section 38(2)(b) of the Act or a transport impact assessment contemplated in Schedule 6 Item 3(16) of the Land Use Management By-Law, the Municipality shall give due attention to the provision of infrastructure that promotes and accommodates non-motorised transport including, but not limited to:

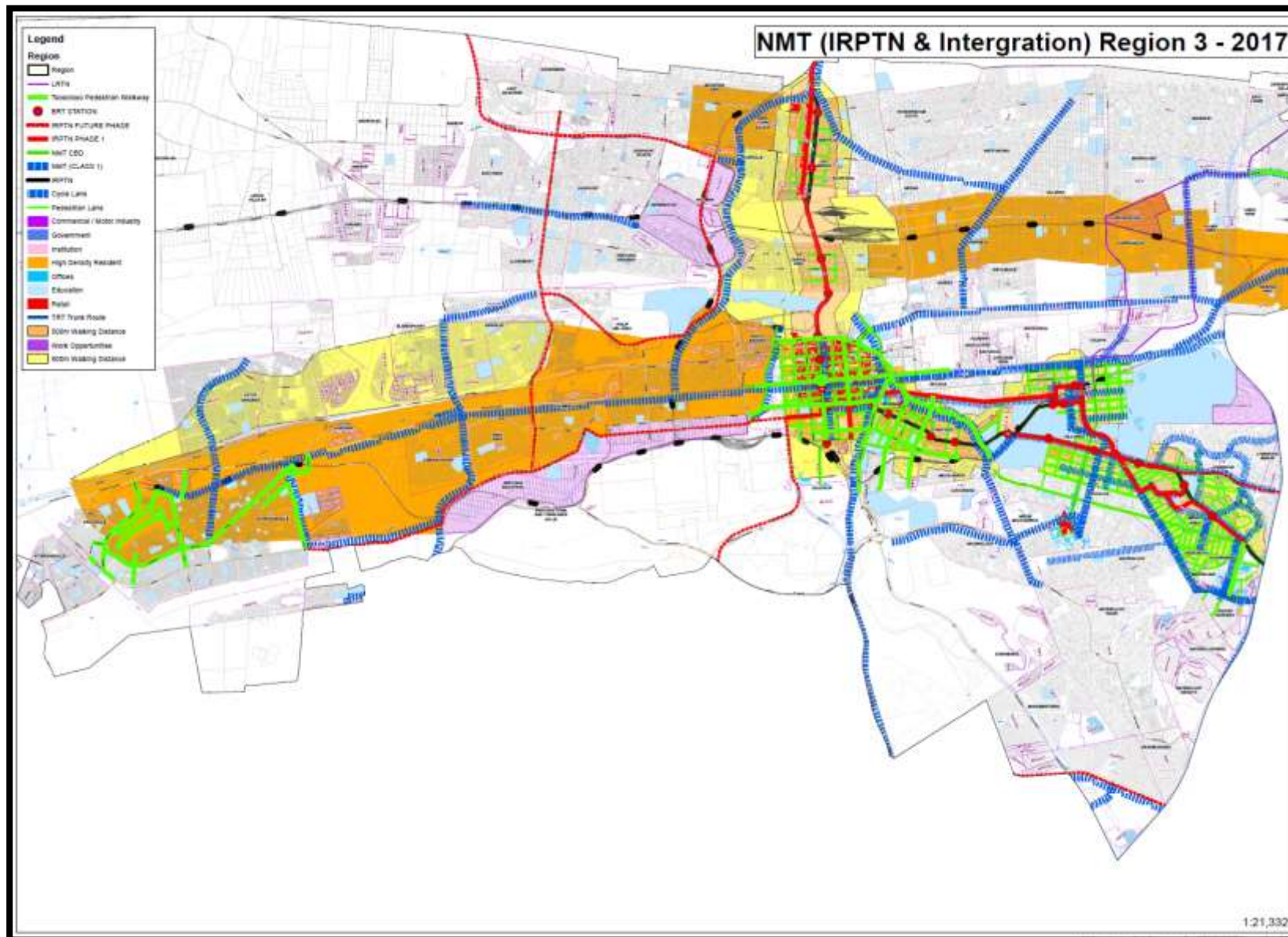
- (a) secure places to store cycles;
- (b) easy and convenient access to the premises by pedestrians and cyclists;
- (c) safe pedestrian crossings over public roads giving access to the property;
- (d) traffic calming measures, such as zebra crossings, pelicans, toucans and midblock crossings;
- (e) accommodating special categories of passengers and pedestrians;
- (f) pedestrian walkways and cycle lanes where appropriate, and
- (g) ablution facilities and dustbins.

The NMT plan at the end of this section indicates the end goal.



Source: City of Tshwane: Lynnwood Road proposals: 2016.





## 4.15 RURAL AREAS

The newly demarcated COT, resulting from the merger between Metsweding District Municipality and the former City of Tshwane, now includes a significant rural component. These new rural areas, as well as the other existing areas, need to be analysed and planned in order to protect the environmentally sensitive areas, to manage the buffer areas, to create opportunities for sustainable development and to promote sound land use development in the less sensitive areas. The vision for the Tshwane Rural Component has been explained in paragraph 2.5.3.

In Region 3, the rural component comprises of two separate precincts, i.e. the Schurveberg area south of the Witwatersberg, which extends from the western edge of the Atteridgeville and Lotus Gardens townships to the metropolitan boundary and the West Moot area, extending north of the Witwatersberg from the western edge of the urban development in Andeon and Kirkney to the North West provincial boundary. Although these two areas are adjacent to one another, there is no direct road link between the two because of the imposing Witwatersberg which separates them. The plan at the end of this section will be applicable to the rural areas of Region 3.

Ecological and agricultural resources are irreplaceable and should be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence, and open space becoming merely land that is not desirable for urban development and thus 'left over' space. Similarly, in order to ensure food security in the long term for the municipality and the province, high potential agricultural land (which is a scarce resource), must be protected from development and exploitation.

### 4.15.1 MAJOR RURAL ROADS

Each region has major roads and routes of Metropolitan context traversing the region which ensures movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 3:

- Former N4/PWV1 (existing)
- R511 (existing)
- R514/ Van der Hoff Road (existing)
- R104/Elias Motswaledi Street (existing)
- M17/Hornsnek Road (existing)
- K20 (proposed)
- K16 (proposed)
- PWV 6 (proposed)
- PWV 7 (proposed)

### 4.15.2 Urban Edge

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision for essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 "Metropolitan Context" of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 3.

### 4.15.3 Development Edge

The Development Edge compliments and corresponds mostly with the Provincial Urban Edge to indicate the extent of the Urban Fabric, but it deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in that Region. The resulting areas in between the deviation of the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.



#### 4.15.4 Future Urban Development Areas



The Future Development areas are identified for development in the near future.

The issue of expansion of Atteridgeville requires urgent attention. It must be expected that Atteridgeville will expand in a westerly direction in the short term due to the high population and urbanisation rates that still occur. An integrated management approach will have to be followed to address further encroachments into environmentally sensitive areas beyond the current western area.

The area located to the north of the former N4 toll road, to the west of Elandspoor, up to and including the Gerotek land, is identified for Future Urban development. The better utilization of land is however also an important factor to consider. Different housing typologies at various densities need to be implemented on the land suitable for housing development, especially to the north of WF Nkomo Street.

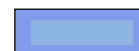
The Andeon Agricultural Holdings, as well as portions of the farm Zandfontein 317-JR and the Kirkney townships were originally earmarked for industrial development. However, there has not been a significant demand in the area for further industrial development due to the poor access. It is proposed that these areas be earmarked for future expansion for residential development. The area is easily accessible to the Inner City, the Zone of Choice and the Akasia/Pretoria North CBD. It is proposed that medium density residential development be encouraged here. Typical housing typologies that will be appropriate in this area will be medium to low-rise apartment buildings, walk-ups and duplex residential developments.

It should also be noted that there are many vacant erven in Lady Selbourne and in Lotus Gardens that belong to the Municipality and which have General Residential or Group Housing land-use rights. The development of these erven should be encouraged through Public Private Partnerships (PPP).

Proposed development considerations for development in Future Urban Development Areas can be summarized as follows:

- The contribution of the proposed development towards the goals of the City Strategy and Metropolitan Spatial Development Framework;
- The availability of bulk engineering services – especially water and sewerage;
- The environmental sensitivity of the area – considerations such as water courses, ridges, etc;
- Proximity of site to public transportation routes/facilities such as stations;
- Proximity to other supporting social facilities, economic opportunities and retail developments;
- Physical features that may define the development, such as railway lines / watersheds / provincial roads / environmental areas;
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities;
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long;
- The provisions of sustainable economic opportunities within these areas.

#### 4.15.5 Management Zones



The Management Zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity. They may also be characterised by environmental sensitivities as indicated by the Biodiversity Plan and the Tshwane Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided.

Within the Management Zones land-uses and densities which do not fit into the denser urban complex, should be permitted. Uses supported in the Management Zones would include lodges, wedding venues, mini storage facilities, places of refreshment and children party venues. The availability of services and the ease of access to major roads will play an important role in the evaluation of non-residential uses as mentioned above. Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on the Region 3 Rural Plan. Locations at the intersections of major roads will be supported.

#### 4.15.6 Agricultural High Potential Areas / Biodiversity Zone



Where so indicated, certain land in Tshwane Rural Component has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities or is able to provide high yields or products with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food production for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri-industries will be supported in and in close proximity of high potential agricultural areas.

#### 4.15.7 Sensitive Protected Areas /Biodiversity Zone



Sensitive protected areas are indicated on the Biodiversity Plan, including ridges and streams, natural resources, fauna and flora protected places/areas. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Areas of Region 3 are located mainly along the Magaliesberg Protected Nature Area along the northern boundary of the region, as well as along the Crocodile River in the extreme south-west. These areas should be managed through environmental codes, to protect the basic resources. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the Biodiversity Plan.

Non-agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.15.8 Sensitive Ridge Areas



Sensitive protected areas. (Combination of the Biodiversity Plan protected areas, including ridges and streams, natural resources, fauna and flora protected places/areas). These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Areas of Region 3 is located mainly along the Magaliesberg Protected Nature Area along the northern boundary of the region, as well as along the Crocodile River in the extreme south-west. These areas should be managed through environmental codes, to protect the basic resources. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the Biodiversity Plan.

#### 4.15.9 Heritage and Cultural Protected Areas



Similar to the protection of monumental structures, places and land within the urban context, there are equally important structures, places and land found in Tshwane's rural areas that need protection. In most cases the best

protection can be provided when it is also developed and operated as tourist attractions.

#### 4.15.10 Tourism Potential Places/Areas

##### Tourism

Of natural and economic importance for Tshwane is the accrue ment and expansion of the already known places of tourism, tourist attractions and activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas.

#### 4.15.11 Conservancies

##### Conservancy

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honored in the rural context and the evaluation of development proposals.

The Franklin Conservancy, located just to the west of the Gerotek facility, is found in Region 3.

#### 4.15.12 Game and Nature Reserves

##### Game and Nature

The following places with tourist potential are found in Region 3:

- Cheetah Park
- Magaliesberg Nature Area
- Groenkloof Nature Reserve
- Rens Nature Reserve

#### 4.15.13 Mines and Places of Manufacturing

##### Mines/ Places of

There are a few and dispersed mines and / or places of manufacturing in Region 3, for instance a number of stone quarries along Kenneth Road on the farm Boekenhoutkloof. All such land uses need to be managed for their period of existence and specific rehabilitation programs should be investigated and initiated. Protection measures should be implemented for adjacent land and sensitive environments.

#### 4.15.14 Human Settlements



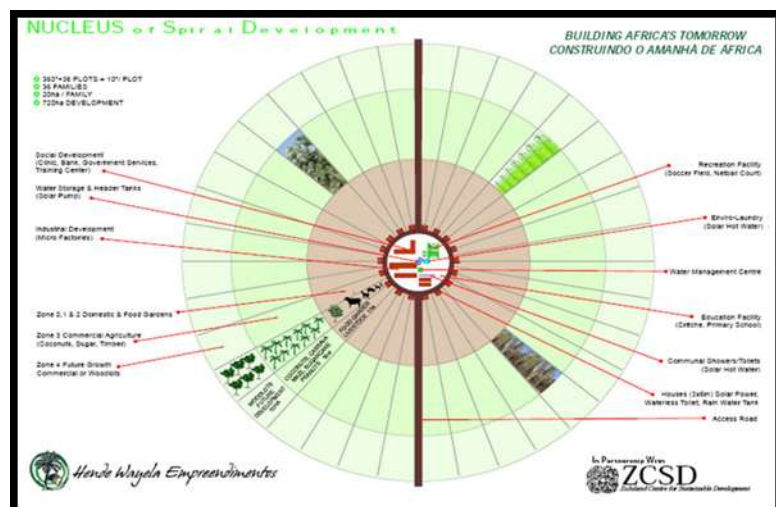
There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalised and provided for in terms of human needs and basic services. A settlement that must

move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

### Agri-Village Establishment

The focus on the establishment of specialised centres in the form of Agri-Villages in appropriate locations will specifically help to facilitate agrarian transformation and land reform as envisioned by the CRDP. Notably, such villages also aim at promoting food security.

The key to the success of Agri-Village development is rooted in the principle of focused and deliberate government investment spending to ensure that these centres develop to provide an extensive range of community facilities, and becoming the spatial focal points of agriculturally driven LED interventions and land reform initiatives. By doing so, an Agri-Village possess the inherent potential to act as a spatial point within a larger rural space- economy around which the critical mass required to initiate formal and informal local economic development can occur.



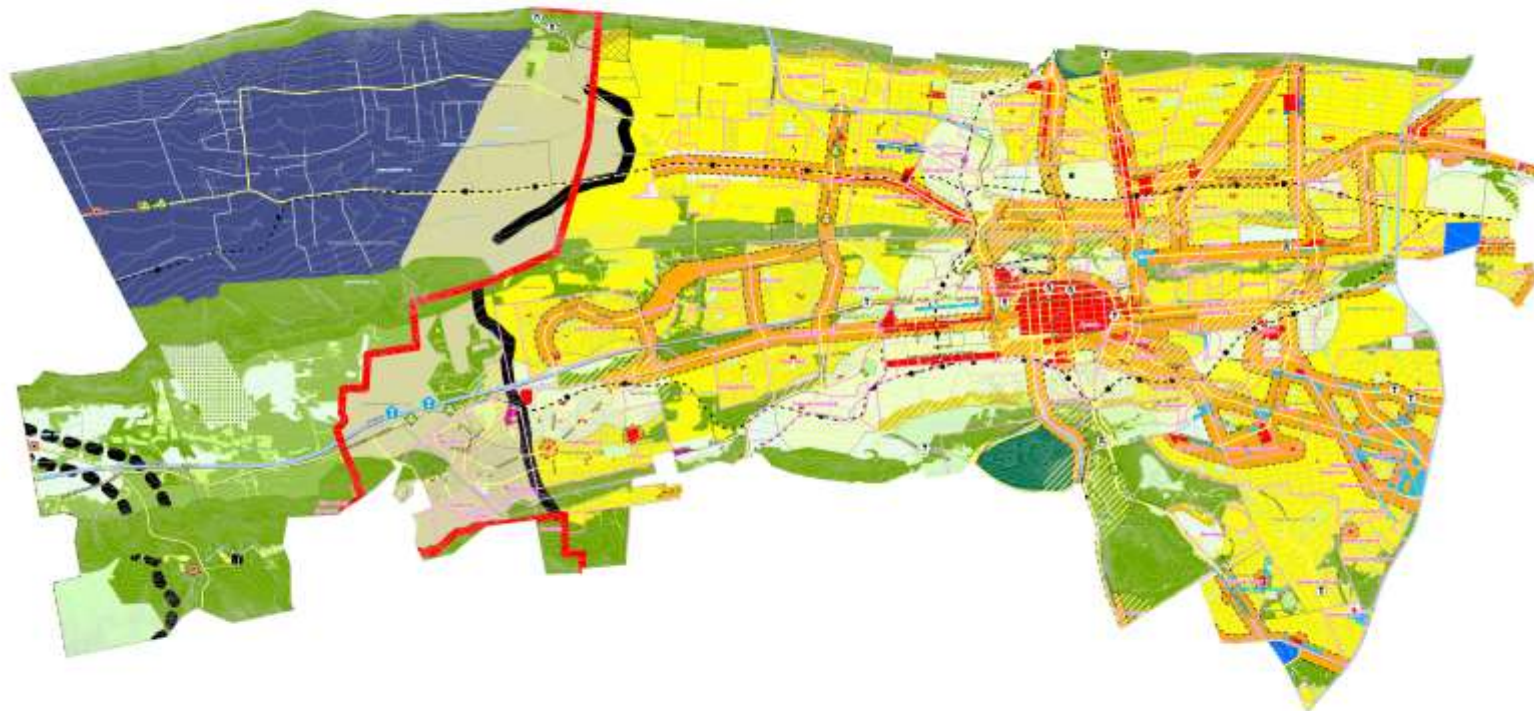
### 4.15.15 Community Service Centres



Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfil certain basic needs. Because of the extensiveness of most rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component.



Region 3: Rural plan



<b>Legend</b>		
Shaded version Urban Edge 2011	Green - Medium Density	Severely Protective Areas
Water - Rural Water	High Protection Agriculture	Drifts Buffer Zone
Low Density Zone	Office	Development Edge
Medium Density Zone	Core	Management Edge
High Density Zone	Other 2011/12 L2012 Line	Police Urban Development Area
Water	Industrial	Community Service Centre
Police Regional Community	Suburban Density	Boundary Zone
Transportation Network	Proven Settlement	
	Rural	
	Rural Service Centre	

#### 4.15.16 HERITAGE IMPACT

Future Developments within Region 3 must take Cultural and Heritage aspects into consideration if applicable. Historical and structure older than 60 years are found within Region 3 specifically in the following areas CBD, Sunnyside, Arcadia Hatfield, Hillcrest, Brooklyn



Source: City of Tshwane, Brooklyn : 2017

The conservation of cultural resources within the corridor are controlled by The National Resources act, 1999 (Act 25 of 1999). In terms of this act structures and sites older than 60 years are protected. Section 34(1) of the National Heritage Act indicates that no person may demolish any structure or part thereof which is older than 60 years.

#### 4.16 OPEN SPACE AND ENVIRONMENTAL AREAS

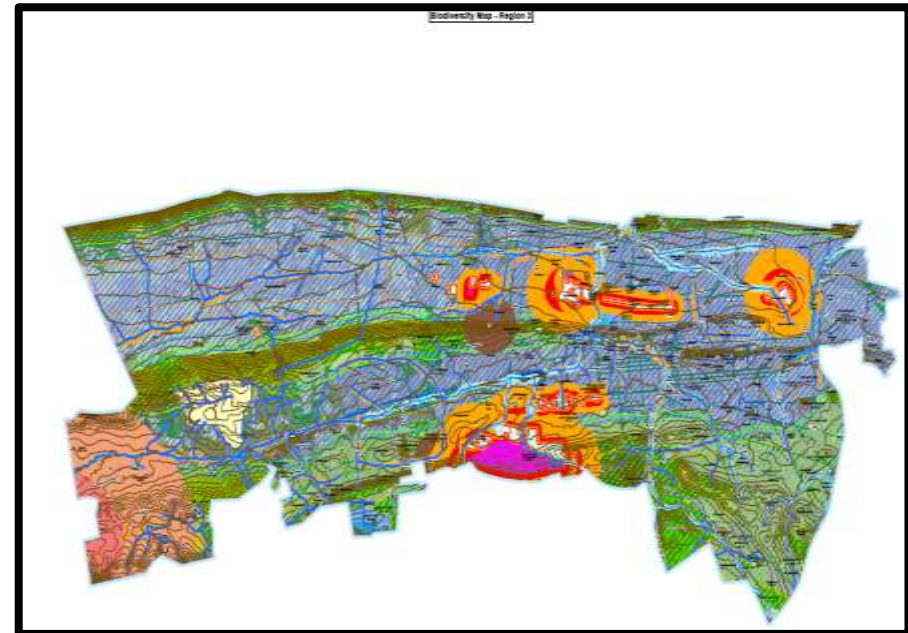
The RSDF plan does not indicate the whole metropolitan open space network because of its concern with open spaces on a regional scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the TOSF, all nature areas and conservation areas, as well as the major brown nodes. The plan also shows as 'Environmental Areas' all irreplaceable and important sites, as identified and defined by GDARD, as well as all conservancies. Brown, grey and red nodes and ways are not shown. For complete and detailed information regarding the metropolitan open space network, it is essential and of utmost importance that the TOSF plans is always consulted together with the RSDF plan.

The major open space network form-giving elements have been indicated in the RSDF. Potential place-making opportunities exist along WF Nkomo Street West, at entrances to the Inner City, gateways at ridge crossings and at the proposed Saulsville Station urban core, around Church Square and Helen Joseph Street Mall, the Union Buildings, the Tshwane Kopanong area and the Pretoria Zoo. The Wolwespruit running along the N1 in the Erasmuskloof area also creates opportunities for place-making in Region 3. The Biodiversity map also indicates the Gauteng Sustainable Development Guideline and the Gauteng Pollution Buffer Zone Guidelines for Industrial uses. Mine dumps, landfill sites and sensitive valley's.

Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey. The Biodiversity map and tables, as identified and defined by GDARD ( used Gauteng Environmental Management Framework 2014 must be used as a guideline for land use management in these areas. Where a property falls within a zone associated with a critical biodiversity area, the on-site specifics may not necessarily translate into the entire cadastral unit being subject to such guidelines. Areas unaffected by biodiversity restrictions will be subject to the normal land use proposals as indicated in the RSDF and surrounding properties.

The Biodiversity map and tables must be used as a guideline for land uses management in these areas. Where a property falls within a zone associated with a critical biodiversity area the on-site specifics may not necessarily translate into the entire cadastral unit being subject to such

guidelines. Areas unaffected by biodiversity restrictions will be subject to the normal land use proposals as indicated in the RSDF and surrounding properties.



The Biodiversity map and tables below must be used as a guideline for land-use management in these areas.

## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
Protected Areas	Formal Protected Areas and Protected Areas pending declaration under NEMPA	Maintain natural land. Rehabilitate degraded areas to natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities	All other-uses.
Critical Biodiversity Area (1)	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss on intact habitat or intensification of land use.	Conservation and associated activities Eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Urban Open Systems	Urban land-uses including residential (including golf estates, rural residential, resorts), Business, Mining & Industrial, infrastructure (roads, power lines, pipelines). Intensive Animal production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings.
Critical Biodiversity Area (2)	Cultivated landscapes which retain importance for supporting threatened species.	Maintain current agricultural activities. Ensure that the land use is not intensified and managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including residential (including golf estates, rural residential, resorts), Business, Mining & Industrial, infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.



Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				



**Legend**

- Region
- Municipal Boundary
- Highways
- Urban Edge 2017
- Contours 2013 20m

- Dam
- River
- 32m River Buffer

- Floodline 50 Year
- Floodline 100 Year
- Indicative 100 year Floodline

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2

- No Natural Remaining
- Other Natural Area
- Protected Area (Formal)

- |   |  |  |  |
|---|--|--|--|
| <ul style="list-style-type: none"> <li>Industry_Stacked</li> <li>OLA_ZONE1</li> <li>CLASS 1 INDUSTRIAL</li> <li>CLASS 2 INDUSTRIAL</li> <li>CLASS 3 INDUSTRIAL</li> <li>CLASS 4 INDUSTRIAL</li> <li>CLASS 5 INDUSTRIAL</li> <li>CLASS 6 INDUSTRIAL</li> <li>CLASS 7 INDUSTRIAL</li> <li>CLASS 8 INDUSTRIAL</li> <li>CLASS 9 INDUSTRIAL</li> <li>CLASS 10 INDUSTRIAL</li> <li>CLASS 11 INDUSTRIAL</li> <li>CLASS 12 INDUSTRIAL</li> <li>CLASS 13 INDUSTRIAL</li> <li>CLASS 14 INDUSTRIAL</li> <li>CLASS 15 INDUSTRIAL</li> <li>CLASS 16 INDUSTRIAL</li> <li>CLASS 17 INDUSTRIAL</li> <li>CLASS 18 INDUSTRIAL</li> <li>CLASS 19 INDUSTRIAL</li> <li>CLASS 20 INDUSTRIAL</li> <li>CLASS 21 INDUSTRIAL</li> <li>CLASS 22 INDUSTRIAL</li> <li>CLASS 23 INDUSTRIAL</li> <li>CLASS 24 INDUSTRIAL</li> <li>CLASS 25 INDUSTRIAL</li> <li>CLASS 26 INDUSTRIAL</li> <li>CLASS 27 INDUSTRIAL</li> <li>CLASS 28 INDUSTRIAL</li> <li>CLASS 29 INDUSTRIAL</li> <li>CLASS 30 INDUSTRIAL</li> <li>CLASS 31 INDUSTRIAL</li> <li>CLASS 32 INDUSTRIAL</li> <li>CLASS 33 INDUSTRIAL</li> <li>CLASS 34 INDUSTRIAL</li> <li>CLASS 35 INDUSTRIAL</li> <li>CLASS 36 INDUSTRIAL</li> <li>CLASS 37 INDUSTRIAL</li> <li>CLASS 38 INDUSTRIAL</li> <li>CLASS 39 INDUSTRIAL</li> <li>CLASS 40 INDUSTRIAL</li> <li>CLASS 41 INDUSTRIAL</li> <li>CLASS 42 INDUSTRIAL</li> <li>CLASS 43 INDUSTRIAL</li> <li>CLASS 44 INDUSTRIAL</li> <li>CLASS 45 INDUSTRIAL</li> <li>CLASS 46 INDUSTRIAL</li> <li>CLASS 47 INDUSTRIAL</li> <li>CLASS 48 INDUSTRIAL</li> <li>CLASS 49 INDUSTRIAL</li> <li>CLASS 50 INDUSTRIAL</li> <li>CLASS 51 INDUSTRIAL</li> <li>CLASS 52 INDUSTRIAL</li> <li>CLASS 53 INDUSTRIAL</li> <li>CLASS 54 INDUSTRIAL</li> <li>CLASS 55 INDUSTRIAL</li> <li>CLASS 56 INDUSTRIAL</li> <li>CLASS 57 INDUSTRIAL</li> <li>CLASS 58 INDUSTRIAL</li> <li>CLASS 59 INDUSTRIAL</li> <li>CLASS 60 INDUSTRIAL</li> <li>CLASS 61 INDUSTRIAL</li> <li>CLASS 62 INDUSTRIAL</li> <li>CLASS 63 INDUSTRIAL</li> <li>CLASS 64 INDUSTRIAL</li> <li>CLASS 65 INDUSTRIAL</li> <li>CLASS 66 INDUSTRIAL</li> <li>CLASS 67 INDUSTRIAL</li> <li>CLASS 68 INDUSTRIAL</li> <li>CLASS 69 INDUSTRIAL</li> <li>CLASS 70 INDUSTRIAL</li> <li>CLASS 71 INDUSTRIAL</li> <li>CLASS 72 INDUSTRIAL</li> <li>CLASS 73 INDUSTRIAL</li> <li>CLASS 74 INDUSTRIAL</li> <li>CLASS 75 INDUSTRIAL</li> <li>CLASS 76 INDUSTRIAL</li> <li>CLASS 77 INDUSTRIAL</li> <li>CLASS 78 INDUSTRIAL</li> <li>CLASS 79 INDUSTRIAL</li> <li>CLASS 80 INDUSTRIAL</li> <li>CLASS 81 INDUSTRIAL</li> <li>CLASS 82 INDUSTRIAL</li> <li>CLASS 83 INDUSTRIAL</li> <li>CLASS 84 INDUSTRIAL</li> <li>CLASS 85 INDUSTRIAL</li> <li>CLASS 86 INDUSTRIAL</li> <li>CLASS 87 INDUSTRIAL</li> <li>CLASS 88 INDUSTRIAL</li> <li>CLASS 89 INDUSTRIAL</li> <li>CLASS 90 INDUSTRIAL</li> <li>CLASS 91 INDUSTRIAL</li> <li>CLASS 92 INDUSTRIAL</li> <li>CLASS 93 INDUSTRIAL</li> <li>CLASS 94 INDUSTRIAL</li> <li>CLASS 95 INDUSTRIAL</li> <li>CLASS 96 INDUSTRIAL</li> <li>CLASS 97 INDUSTRIAL</li> <li>CLASS 98 INDUSTRIAL</li> <li>CLASS 99 INDUSTRIAL</li> <li>CLASS 100 INDUSTRIAL</li> </ul> | <ul style="list-style-type: none"> <li>INDUSTRIAL_ZONE1</li> <li>INDUSTRIAL_ZONE2</li> <li>INDUSTRIAL_ZONE3</li> <li>INDUSTRIAL_ZONE4</li> <li>INDUSTRIAL_ZONE5</li> <li>INDUSTRIAL_ZONE6</li> <li>INDUSTRIAL_ZONE7</li> <li>INDUSTRIAL_ZONE8</li> <li>INDUSTRIAL_ZONE9</li> <li>INDUSTRIAL_ZONE10</li> <li>INDUSTRIAL_ZONE11</li> <li>INDUSTRIAL_ZONE12</li> <li>INDUSTRIAL_ZONE13</li> <li>INDUSTRIAL_ZONE14</li> <li>INDUSTRIAL_ZONE15</li> <li>INDUSTRIAL_ZONE16</li> <li>INDUSTRIAL_ZONE17</li> <li>INDUSTRIAL_ZONE18</li> <li>INDUSTRIAL_ZONE19</li> <li>INDUSTRIAL_ZONE20</li> <li>INDUSTRIAL_ZONE21</li> <li>INDUSTRIAL_ZONE22</li> <li>INDUSTRIAL_ZONE23</li> <li>INDUSTRIAL_ZONE24</li> <li>INDUSTRIAL_ZONE25</li> <li>INDUSTRIAL_ZONE26</li> <li>INDUSTRIAL_ZONE27</li> <li>INDUSTRIAL_ZONE28</li> <li>INDUSTRIAL_ZONE29</li> <li>INDUSTRIAL_ZONE30</li> <li>INDUSTRIAL_ZONE31</li> <li>INDUSTRIAL_ZONE32</li> <li>INDUSTRIAL_ZONE33</li> <li>INDUSTRIAL_ZONE34</li> <li>INDUSTRIAL_ZONE35</li> <li>INDUSTRIAL_ZONE36</li> <li>INDUSTRIAL_ZONE37</li> <li>INDUSTRIAL_ZONE38</li> <li>INDUSTRIAL_ZONE39</li> <li>INDUSTRIAL_ZONE40</li> <li>INDUSTRIAL_ZONE41</li> <li>INDUSTRIAL_ZONE42</li> <li>INDUSTRIAL_ZONE43</li> <li>INDUSTRIAL_ZONE44</li> <li>INDUSTRIAL_ZONE45</li> <li>INDUSTRIAL_ZONE46</li> <li>INDUSTRIAL_ZONE47</li> <li>INDUSTRIAL_ZONE48</li> <li>INDUSTRIAL_ZONE49</li> <li>INDUSTRIAL_ZONE50</li> <li>INDUSTRIAL_ZONE51</li> <li>INDUSTRIAL_ZONE52</li> <li>INDUSTRIAL_ZONE53</li> <li>INDUSTRIAL_ZONE54</li> <li>INDUSTRIAL_ZONE55</li> <li>INDUSTRIAL_ZONE56</li> <li>INDUSTRIAL_ZONE57</li> <li>INDUSTRIAL_ZONE58</li> <li>INDUSTRIAL_ZONE59</li> <li>INDUSTRIAL_ZONE60</li> <li>INDUSTRIAL_ZONE61</li> <li>INDUSTRIAL_ZONE62</li> <li>INDUSTRIAL_ZONE63</li> <li>INDUSTRIAL_ZONE64</li> <li>INDUSTRIAL_ZONE65</li> <li>INDUSTRIAL_ZONE66</li> <li>INDUSTRIAL_ZONE67</li> <li>INDUSTRIAL_ZONE68</li> <li>INDUSTRIAL_ZONE69</li> <li>INDUSTRIAL_ZONE70</li> <li>INDUSTRIAL_ZONE71</li> <li>INDUSTRIAL_ZONE72</li> <li>INDUSTRIAL_ZONE73</li> <li>INDUSTRIAL_ZONE74</li> <li>INDUSTRIAL_ZONE75</li> <li>INDUSTRIAL_ZONE76</li> <li>INDUSTRIAL_ZONE77</li> <li>INDUSTRIAL_ZONE78</li> <li>INDUSTRIAL_ZONE79</li> <li>INDUSTRIAL_ZONE80</li> <li>INDUSTRIAL_ZONE81</li> <li>INDUSTRIAL_ZONE82</li> <li>INDUSTRIAL_ZONE83</li> <li>INDUSTRIAL_ZONE84</li> <li>INDUSTRIAL_ZONE85</li> <li>INDUSTRIAL_ZONE86</li> <li>INDUSTRIAL_ZONE87</li> <li>INDUSTRIAL_ZONE88</li> <li>INDUSTRIAL_ZONE89</li> <li>INDUSTRIAL_ZONE90</li> <li>INDUSTRIAL_ZONE91</li> <li>INDUSTRIAL_ZONE92</li> <li>INDUSTRIAL_ZONE93</li> <li>INDUSTRIAL_ZONE94</li> <li>INDUSTRIAL_ZONE95</li> <li>INDUSTRIAL_ZONE96</li> <li>INDUSTRIAL_ZONE97</li> <li>INDUSTRIAL_ZONE98</li> <li>INDUSTRIAL_ZONE99</li> <li>INDUSTRIAL_ZONE100</li> </ul> | <ul style="list-style-type: none"> <li>INDUSTRIAL_ZONE101</li> <li>INDUSTRIAL_ZONE102</li> <li>INDUSTRIAL_ZONE103</li> <li>INDUSTRIAL_ZONE104</li> <li>INDUSTRIAL_ZONE105</li> <li>INDUSTRIAL_ZONE106</li> <li>INDUSTRIAL_ZONE107</li> <li>INDUSTRIAL_ZONE108</li> <li>INDUSTRIAL_ZONE109</li> <li>INDUSTRIAL_ZONE110</li> <li>INDUSTRIAL_ZONE111</li> <li>INDUSTRIAL_ZONE112</li> <li>INDUSTRIAL_ZONE113</li> <li>INDUSTRIAL_ZONE114</li> <li>INDUSTRIAL_ZONE115</li> <li>INDUSTRIAL_ZONE116</li> <li>INDUSTRIAL_ZONE117</li> <li>INDUSTRIAL_ZONE118</li> <li>INDUSTRIAL_ZONE119</li> <li>INDUSTRIAL_ZONE120</li> <li>INDUSTRIAL_ZONE121</li> <li>INDUSTRIAL_ZONE122</li> <li>INDUSTRIAL_ZONE123</li> <li>INDUSTRIAL_ZONE124</li> <li>INDUSTRIAL_ZONE125</li> <li>INDUSTRIAL_ZONE126</li> <li>INDUSTRIAL_ZONE127</li> <li>INDUSTRIAL_ZONE128</li> <li>INDUSTRIAL_ZONE129</li> <li>INDUSTRIAL_ZONE130</li> <li>INDUSTRIAL_ZONE131</li> <li>INDUSTRIAL_ZONE132</li> <li>INDUSTRIAL_ZONE133</li> <li>INDUSTRIAL_ZONE134</li> <li>INDUSTRIAL_ZONE135</li> <li>INDUSTRIAL_ZONE136</li> <li>INDUSTRIAL_ZONE137</li> <li>INDUSTRIAL_ZONE138</li> <li>INDUSTRIAL_ZONE139</li> <li>INDUSTRIAL_ZONE140</li> <li>INDUSTRIAL_ZONE141</li> <li>INDUSTRIAL_ZONE142</li> <li>INDUSTRIAL_ZONE143</li> <li>INDUSTRIAL_ZONE144</li> <li>INDUSTRIAL_ZONE145</li> <li>INDUSTRIAL_ZONE146</li> <li>INDUSTRIAL_ZONE147</li> <li>INDUSTRIAL_ZONE148</li> <li>INDUSTRIAL_ZONE149</li> <li>INDUSTRIAL_ZONE150</li> <li>INDUSTRIAL_ZONE151</li> <li>INDUSTRIAL_ZONE152</li> <li>INDUSTRIAL_ZONE153</li> <li>INDUSTRIAL_ZONE154</li> <li>INDUSTRIAL_ZONE155</li> <li>INDUSTRIAL_ZONE156</li> <li>INDUSTRIAL_ZONE157</li> <li>INDUSTRIAL_ZONE158</li> <li>INDUSTRIAL_ZONE159</li> <li>INDUSTRIAL_ZONE160</li> <li>INDUSTRIAL_ZONE161</li> <li>INDUSTRIAL_ZONE162</li> <li>INDUSTRIAL_ZONE163</li> <li>INDUSTRIAL_ZONE164</li> <li>INDUSTRIAL_ZONE165</li> <li>INDUSTRIAL_ZONE166</li> <li>INDUSTRIAL_ZONE167</li> <li>INDUSTRIAL_ZONE168</li> <li>INDUSTRIAL_ZONE169</li> <li>INDUSTRIAL_ZONE170</li> <li>INDUSTRIAL_ZONE171</li> <li>INDUSTRIAL_ZONE172</li> <li>INDUSTRIAL_ZONE173</li> <li>INDUSTRIAL_ZONE174</li> <li>INDUSTRIAL_ZONE175</li> <li>INDUSTRIAL_ZONE176</li> <li>INDUSTRIAL_ZONE177</li> <li>INDUSTRIAL_ZONE178</li> <li>INDUSTRIAL_ZONE179</li> <li>INDUSTRIAL_ZONE180</li> <li>INDUSTRIAL_ZONE181</li> <li>INDUSTRIAL_ZONE182</li> <li>INDUSTRIAL_ZONE183</li> <li>INDUSTRIAL_ZONE184</li> <li>INDUSTRIAL_ZONE185</li> <li>INDUSTRIAL_ZONE186</li> <li>INDUSTRIAL_ZONE187</li> <li>INDUSTRIAL_ZONE188</li> <li>INDUSTRIAL_ZONE189</li> <li>INDUSTRIAL_ZONE190</li> <li>INDUSTRIAL_ZONE191</li> <li>INDUSTRIAL_ZONE192</li> <li>INDUSTRIAL_ZONE193</li> <li>INDUSTRIAL_ZONE194</li> <li>INDUSTRIAL_ZONE195</li> <li>INDUSTRIAL_ZONE196</li> <li>INDUSTRIAL_ZONE197</li> <li>INDUSTRIAL_ZONE198</li> <li>INDUSTRIAL_ZONE199</li> <li>INDUSTRIAL_ZONE200</li> </ul> | <ul style="list-style-type: none"> <li>INDUSTRIAL_ZONE201</li> <li>INDUSTRIAL_ZONE202</li> <li>INDUSTRIAL_ZONE203</li> <li>INDUSTRIAL_ZONE204</li> <li>INDUSTRIAL_ZONE205</li> <li>INDUSTRIAL_ZONE206</li> <li>INDUSTRIAL_ZONE207</li> <li>INDUSTRIAL_ZONE208</li> <li>INDUSTRIAL_ZONE209</li> <li>INDUSTRIAL_ZONE210</li> <li>INDUSTRIAL_ZONE211</li> <li>INDUSTRIAL_ZONE212</li> <li>INDUSTRIAL_ZONE213</li> <li>INDUSTRIAL_ZONE214</li> <li>INDUSTRIAL_ZONE215</li> <li>INDUSTRIAL_ZONE216</li> <li>INDUSTRIAL_ZONE217</li> <li>INDUSTRIAL_ZONE218</li> <li>INDUSTRIAL_ZONE219</li> <li>INDUSTRIAL_ZONE220</li> <li>INDUSTRIAL_ZONE221</li> <li>INDUSTRIAL_ZONE222</li> <li>INDUSTRIAL_ZONE223</li> <li>INDUSTRIAL_ZONE224</li> <li>INDUSTRIAL_ZONE225</li> <li>INDUSTRIAL_ZONE226</li> <li>INDUSTRIAL_ZONE227</li> <li>INDUSTRIAL_ZONE228</li> <li>INDUSTRIAL_ZONE229</li> <li>INDUSTRIAL_ZONE230</li> <li>INDUSTRIAL_ZONE231</li> <li>INDUSTRIAL_ZONE232</li> <li>INDUSTRIAL_ZONE233</li> <li>INDUSTRIAL_ZONE234</li> <li>INDUSTRIAL_ZONE235</li> <li>INDUSTRIAL_ZONE236</li> <li>INDUSTRIAL_ZONE237</li> <li>INDUSTRIAL_ZONE238</li> <li>INDUSTRIAL_ZONE239</li> <li>INDUSTRIAL_ZONE240</li> <li>INDUSTRIAL_ZONE241</li> <li>INDUSTRIAL_ZONE242</li> <li>INDUSTRIAL_ZONE243</li> <li>INDUSTRIAL_ZONE244</li> <li>INDUSTRIAL_ZONE245</li> <li>INDUSTRIAL_ZONE246</li> <li>INDUSTRIAL_ZONE247</li> <li>INDUSTRIAL_ZONE248</li> <li>INDUSTRIAL_ZONE249</li> <li>INDUSTRIAL_ZONE250</li> <li>INDUSTRIAL_ZONE251</li> <li>INDUSTRIAL_ZONE252</li> <li>INDUSTRIAL_ZONE253</li> <li>INDUSTRIAL_ZONE254</li> <li>INDUSTRIAL_ZONE255</li> <li>INDUSTRIAL_ZONE256</li> <li>INDUSTRIAL_ZONE257</li> <li>INDUSTRIAL_ZONE258</li> <li>INDUSTRIAL_ZONE259</li> <li>INDUSTRIAL_ZONE260</li> <li>INDUSTRIAL_ZONE261</li> <li>INDUSTRIAL_ZONE262</li> <li>INDUSTRIAL_ZONE263</li> <li>INDUSTRIAL_ZONE264</li> <li>INDUSTRIAL_ZONE265</li> <li>INDUSTRIAL_ZONE266</li> <li>INDUSTRIAL_ZONE267</li> <li>INDUSTRIAL_ZONE268</li> <li>INDUSTRIAL_ZONE269</li> <li>INDUSTRIAL_ZONE270</li> <li>INDUSTRIAL_ZONE271</li> <li>INDUSTRIAL_ZONE272</li> <li>INDUSTRIAL_ZONE273</li> <li>INDUSTRIAL_ZONE274</li> <li>INDUSTRIAL_ZONE275</li> <li>INDUSTRIAL_ZONE276</li> <li>INDUSTRIAL_ZONE277</li> <li>INDUSTRIAL_ZONE278</li> <li>INDUSTRIAL_ZONE279</li> <li>INDUSTRIAL_ZONE280</li> <li>INDUSTRIAL_ZONE281</li> <li>INDUSTRIAL_ZONE282</li> <li>INDUSTRIAL_ZONE283</li> <li>INDUSTRIAL_ZONE284</li> <li>INDUSTRIAL_ZONE285</li> <li>INDUSTRIAL_ZONE286</li> <li>INDUSTRIAL_ZONE287</li> <li>INDUSTRIAL_ZONE288</li> <li>INDUSTRIAL_ZONE289</li> <li>INDUSTRIAL_ZONE290</li> <li>INDUSTRIAL_ZONE291</li> <li>INDUSTRIAL_ZONE292</li> <li>INDUSTRIAL_ZONE293</li> <li>INDUSTRIAL_ZONE294</li> <li>INDUSTRIAL_ZONE295</li> <li>INDUSTRIAL_ZONE296</li> <li>INDUSTRIAL_ZONE297</li> <li>INDUSTRIAL_ZONE298</li> <li>INDUSTRIAL_ZONE299</li> <li>INDUSTRIAL_ZONE300</li> </ul> |
|---|--|--|--|



Scale 1:50,000

#### 4.17 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the well-being of the local economy, communities and individual people and provide a range of advantages for the City of Tshwane.

Wetlands can be regarded as “ecological infrastructure”. They are as important as other types of infrastructure for providing a range of services for residents. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

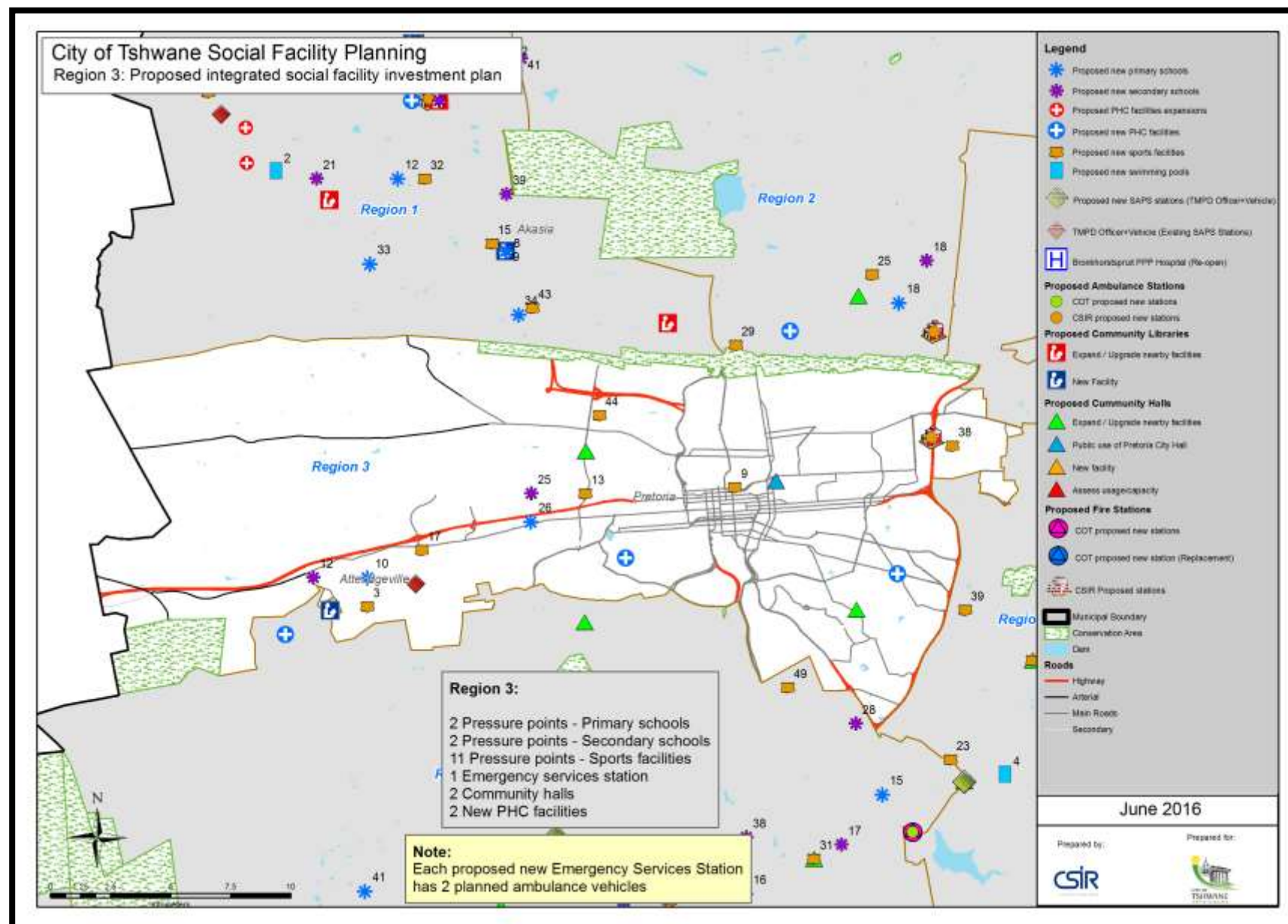
It is important to take note that wetlands benefit all the residents of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan in Region 3 are to ensure that:

- In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
- All departments are aware of the importance of wetlands and wetland conservation.
- The functions of wetlands are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
- Local communities collaborate in wetland management.









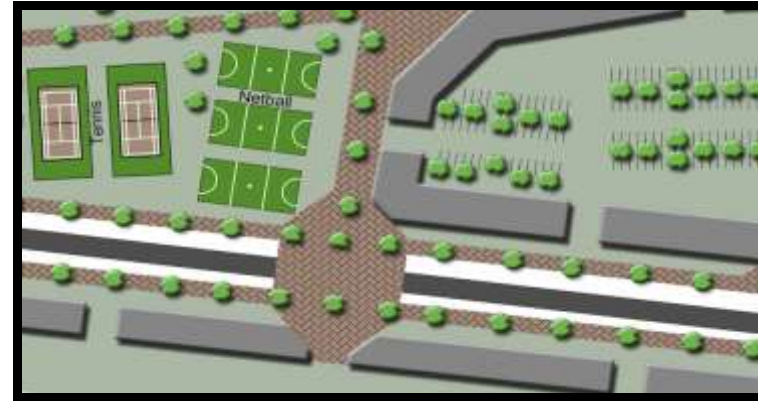
## 4.18 SOCIAL FACILITY PLANNING

From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, pay points, libraries, active and other open space should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically municipally owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

The focus should be to encourage community and stakeholder collaboration; and to retain, enhance and encourage cultural assets. Neighbourhood amenities must be provided as densification takes place. Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organised events and informal meetings).

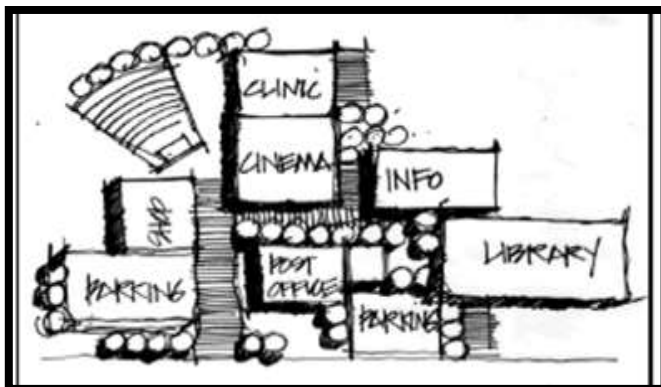


### Primary schools needed in Region 3

Primary schools identified pressure points and their attracted population / demand – Region 3		
Attracted population	Facility equivalent	Suburb / Sub-place
4 074	An equivalent to 4 schools of 1000 pupils	Saulsville / Atteridgeville
1 077	An equivalent to 1 school of 1000 pupils	Kwaggasrand

### Secondary schools needed in Region 3

Secondary schools identified pressure points and their attracted population / demand – Region 3		
Attracted population	Facility equivalent	Suburb / Sub-place
2 114	Equivalent of 2 secondary schools of 1000 pupils	Saulsville / Atteridgeville
879	Equivalent of 1 secondary schools of less than 1000 pupils	Elandsport



## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the Region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework:

#### 5.1.1 TSHWANE INNER CITY DEVELOPMENT STRATEGY

The Inner-City of Tshwane is a place of strategic significance for the city itself and within a broader national context. A large part of Tshwane's international profile and national importance is captured in its symbolic role as National Capital. The City of Tshwane inner-city has therefore been identified as one of the metropolitan cores in terms of the MSDF, over and above that it is one of the most important cities of South Africa as the Capital City of the Country. Celebrating the Capital is one of the strategic focus areas of the City Development Strategy. This has implications for the Region, which incorporates the Inner City as the most prominent physical manifestation of the Capital City image.

The National government has also identified the Tshwane inner-city as the seat of Government through National Cabinet decisions taken during October 1997 and February 2001 respectively. The City has therefore embarked on an extensive plan to locate a sizeable number of Government departments within the inner-city as it is the capital city and also to ensure that government is accessible to the wider community. In relation to its capital city status, the city should reflect the aspirations of its people in the quality of public space, efficiency of public transport, visibility and appropriateness of government offices. The Government head office development presents an opportunity to capitalize on public investment leverage to address the quality of space and architecture in the city.

The inner-city mainly consists of mixed land-use which includes commercial, residential, business and offices and will continue to have mixed land-uses. The vision for the inner-city is to promote a pedestrian friendly environment and to encourage public transport, promote green

spaces and make it a livable and efficient city in terms of movement. It also entails the promotion of higher densities in order to support the infrastructure and to accommodate more people, thereby reducing travel times and promoting the compact city. Tshwane's unique open space potential must be harnessed to support the capital city vision. A high quality public environment can be created which is essential to boost the capital city image. It will also boost the city's attractiveness for foreign and local business activities.

No city can exist and be managed in a sustainable way without a well-defined and well managed open space network. Tshwane is very fortunate in having unique open spaces within its borders and every effort must be made by the authorities to preserve and even expand the open space network.

The inevitable population increases of Tshwane will in future put even more pressure on the usage of existing open space and their value as an asset for the city will increase. All open spaces must therefore be considered as a land use of equal importance to all other land-uses as they form an integral part of the urban fabric. The policy statements in the TOSF regarding open spaces are therefore totally supported by the RSDF.

The Tshwane Inner City Development Strategy (ICDS) focuses on the regeneration and the restructuring of the Tshwane Inner City. The inner city is a place of strategic significance which, at present, is not functioning to its full potential. The emphasis of restructuring and redevelopment should aim to focus public budget expenditure on specific projects and catalytic interventions in order to create strong stimuli for private sector investment.

The vision of the Inner City, building on this ideal of restructuring and redevelopment, is based on three principles:

- In the first place Tshwane –and specifically the Inner City – is seen as a cultural city. There are a number of cultural and heritage assets within the city allowing for the opportunity to create a strong tourism niche centred on the Tshwane inner city. In this regard it is also important to focus on the appearance of the environment in order to create and sustain urban design principles such as vibrancy, colour and texture.

- Secondly the inner city is seen as the Capital City, both of Africa and South Africa. The current quality of the inner city does not, however, support this vision of a world-class capital city. In order to adhere to the standards of major capital cities around the world, restructuring and redevelopment should focus on the promotion of the quality of the inner city.
- Finally, the inner city has to be transformed to an investment destination of choice. It should become an investment node affording viable opportunities to the entire population of Tshwane. Key elements that should be focused on include the following: service infrastructure, accessibility, human profile, high profile developments, convenience, management, environmental quality and identity.

These three principles are underlain by the symbolic concept of confluence. The inner city is a meeting place expressed in terms of contrasts. It is these contrasting elements that create an interwoven lattice of opportunities within the city. The Inner City has the highest order commercial, residential and institutional investment in the metropolitan area. Broad land-use districts include:

- The high density residential areas of Sunnyside and Arcadia.
- The Inner core – mainly including office-, retail, commercial- and residential intensive development.
- Marabastad – this area is reminiscent of the city's historic African vibrancy. It is a service zone with a significant number of people moving through the area. It is subject to extensive urban decay.
- There is a service industry zone - mostly smaller entrepreneurs – along the fringes of the inner core area.

The inner core and Marabastad areas represent the heart and gravitational nucleus of the broader inner city. These areas are significant in terms of restructuring Tshwane as the Capital City. Concentrating redevelopment efforts in this sphere will allow for the greatest impact.

The RSDF for Region 3 is in support of the Tshwane Inner City Development Strategy.

### 5.1.2 PRETORIA INNER CITY SPATIAL DEVELOPMENT FRAMEWORK

A local spatial development framework is currently prepared by the COT for the Inner City.

The proposals contained in this draft local framework will not be in conflict with the goals and objectives of the Regional Spatial Development Framework and should be used as a guideline in considering development applications.

### 5.1.3 TSHWANE INNER CITY PROJECT (RE KGABISA TSHWANE)

The National Department of Public Works commissioned a multidisciplinary team in 2004, with support of Cabinet, to prepare a plan involving a spatial strategy, a financial strategy and a comprehensive needs analysis for each department and an implementation strategy to roll out the re-development of National Government Head Offices in Tshwane. One of the components of the plan is a spatial guidance tool for locating and managing the Government Accommodation in the Inner City. This tool, integrated with other policy documents and projects, will result in an improved image for Government in Tshwane and the stimulation of growth and development in the Inner City.

The vision of the framework is built around the need not only for an improved public image of National Government, but also of an improved public environment within which to work. Some of the main points of the vision are therefore investment in public infrastructure, improved urban management, creation of a public space network, creation of a public transport system and establishing an overall vision for the Capital City.

### 5.1.4 ARCADIA STREET SPATIAL DEVELOPMENT FRAMEWORK

A local spatial development framework was prepared and approved in 2002 by the Tshwane Municipality for Arcadia Street, between Beckett Street and Festival Street.

The approved scenario recognises the need to preserve and protect the special urban quality of the current residential area, but also provides an opportunity to absorb some of the development pressure that exists. The proposals contained in this local framework are not in conflict with the goals



and objectives of the Regional Spatial Development Framework and should be used as a guideline in considering land use applications in Arcadia Street.

It is recommended that the proposals of the Framework be amended to include offices, not only on corner erven, but all along Arcadia Street. In addition, the character of that part of Arcadia Street between Festival Street and Hill Street has changed to such an extent that the proposals of the Framework can no longer be implemented effectively there. Instead, land-use proposals in that area should rather be evaluated against the proposals for the Embassy Precinct in the more recently drafted Hatfield Spatial Development Framework (see Paragraph 5.1.7 below).

### 5.1.5 GROENKLOOF SPATIAL DEVELOPMENT FRAMEWORK

The Groenkloof SDF was approved by Council in 2005. The existing legally zoned business uses are retained and the only other non-residential land-use allowed along George Storrar Drive is offices. The residential density proposals of the RSDF, as set out in Paragraph 4.12, should be applied to Groenkloof.



### 5.1.6 DRAFT BROOKLYN NODE SPATIAL DEVELOPMENT FRAMEWORK

Brooklyn is an existing mixed land-use node that has evolved into one of the city's most significant metropolitan nodes outside the CBD. The area is characterised by strong retail and office components. It also has certain unique element such as a large number of diplomatic establishments and has a significant entertainment sector. Apart from existing dwelling-houses and group-housing developments in and around the node, a variety of residential typologies have been approved in recent months, which are in support of the economic function the node serves.

The importance of the Brooklyn metropolitan node is further emphasized by the Gautrain feeder route to and from the Hatfield Station that encircles the node. This stresses the importance of this metropolitan node, linking it with the Pretoria Station (and the CBD), Johannesburg and O.R. Tambo International Airport.

Bulk municipal infrastructure capacities, as well as the traffic capacity of the major routes running through the node, also need to be improved and in this regard the conversion of the Brooklyn Circle to a traffic light intersection is receiving urgent attention.

Further development and densification of this node is strongly supported on both a horizontal and a vertical scale. The node should include the full spectrum of mixed land-uses, including high density residential uses to support the public transport system of the area.

Expansion of the node is basically contained by Florence Ribeiro Avenue to the west, the Austin Roberts Bird Sanctuary and Justice Mahomed Street to the north and residential suburbs to the west (Groenkloof), to the south (Waterkloof) and to the east (Brooklyn).

A number of distinct land-uses can be identified within the node. They are:

- The Core area, comprising the area around the existing Brooklyn Circle. The highest intensity of mixed land uses should be accommodated within



this precinct, with the most intense development immediately surrounding the circle.

- Offices are mainly located around the core area and along Main Street, Florence Ribeiro Avenue and Bronkhorst Street. The area west of the existing core area up to Florence Ribeiro Avenue is experiencing most change into an office precinct.
- The draft Brooklyn Node SDF proposes high density residential uses that serve as a buffer to contain the expansion of the node horizontally. The existing residential character of the surrounding areas of Waterkloof, Brooklyn, Muckleneuk and Groenkloof should be retained, but significantly higher densities in appropriate locations must be achieved to support the optimal functioning of the node and the public transport potential of the feeder route to the Gautrain station in Hatfield.

The RSDF recognises that the Brooklyn Node is developing into one of the financial nodes of Gauteng, a function traditionally fulfilled by the Inner City. It also acknowledges the changing role and function differentiation between the Inner City and other metropolitan nodes, and it recognises the need for this to be managed more efficiently to ensure a complimentary symbiosis for the larger good of the metropolitan area.

## BROOKLYN NODE SPATIAL DEVELOPMENT FRAMEWORK



### 5.1.7 HATFIELD SPATIAL DEVELOPMENT FRAMEWORK (HSDF)

Hatfield is an existing mixed land-use node that has evolved into one of the city's most significant metropolitan nodes outside the CBD. The area is characterised by strong retail, motor service and office components. It also has certain unique elements such as a large number of diplomatic establishments and a large resident student community of the adjacent University of Pretoria (UP). The following section has been developed in conjunction with the University of Pretoria (UP) and the Hatfield CID. See Hatfield City Improvement District, **Spatial and Institutional Development and Management Framework for the Hatfield Campus Village**: July 2017

The importance of the Hatfield metropolitan node is further emphasized by it having been chosen as one of only three Gautrain station sites in Tshwane, the other two being in the CBD and in Centurion. In addition, the existing Metrorail and the proposed BRT (Bus Rapid Transit) systems running through the node, make it a public transport hub with excellent accessibility for all traffic modes.

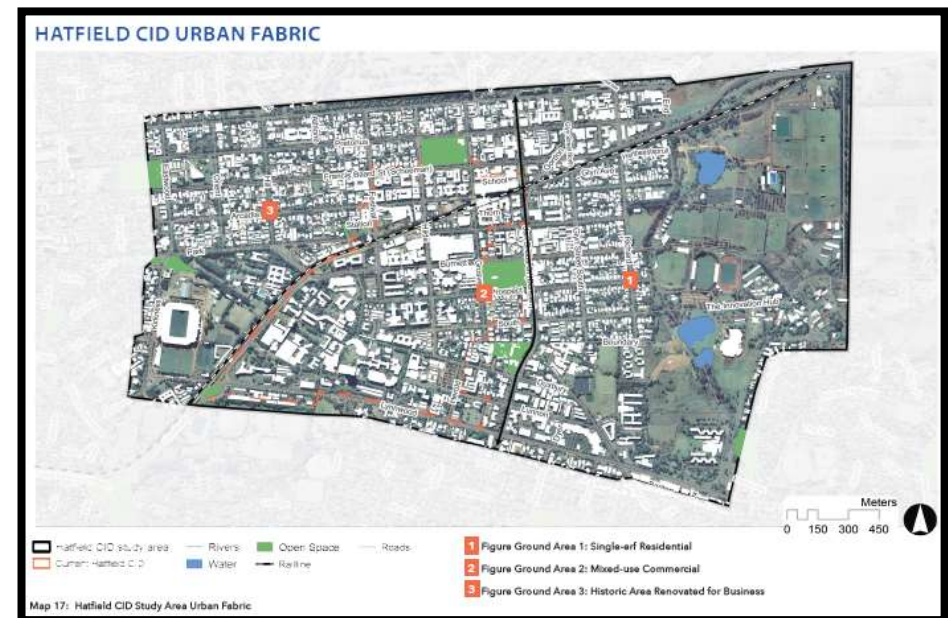
Further development and densification of this node is strongly supported on both a horizontal and a vertical scale. The node should include the full spectrum of land-uses, including high density residential uses to support the public transport system.

The draft HSDF has been developed during the past decade into a comprehensive planning document, addressing a wide variety of developmental aspects in great detail within its study area. Apart from the Hatfield Metropolitan Node, the HSDF contains proposals for a much wider area that extends from the eastern edge of the inner city at Beckett Street to the LC de Villiers sports grounds and from Lynnwood Road to the Colbyn Valley.

In particular, two broad development principles of the draft HSDF need to be applied consistently to the area under discussion. The first principle is that the most intense development (the highest buildings with the highest floor area ratio (FAR) and the highest residential densities) should take place immediately around the Gautrain station and the commercial core as the focal points of the Hatfield Metropolitan Node. Conversely, it means that the further a proposed development is located from these areas, the lower

the development controls for that particular development should be (hereafter referred to as the location principle).

The second sound principle of the HSDF is that higher rights (development controls) will be allocated to larger land parcels and lesser rights to single erven or smaller site assemblies, particularly in the core parts of the node (hereafter referred to as the site assembly principle). The aim of this principle is firstly to strongly encourage developers to assemble larger land parcels for consolidated development with the accompanying advantages of less entrances/exits on the already congested roads and other economies of scale. Secondly, this will minimise small isolated developments which might act as an obstacle in the way of larger block or half block developments.



Source : Hatfield CID Framework, 2017



The HSDF identifies six distinct precincts with differing characteristics within its study area. These precincts are depicted on the map at the end of this paragraph. The various precincts, with some broad development guidelines set out for each by the HSDF, are the following:

### Core Area

The Core area comprises the area roughly within a 0,5 km radius from the Gautrain station. It is demarcated by Glyn Street in the east, the railway line and End Street in the north-east, Stanza Bopape Street in the north, Festival Street in the west and Prospect Street in the south. It also includes a small area south of Prospect Street on both sides of Jan Shoba Street.



The highest intensity of mixed land-uses should be accommodated within this precinct, with the most intense development immediately surrounding the station and the commercial core in Burnett Street.



Proposals of a Transit Mall along Burnett street

The Inner Zone consists of the block containing the Gautrain station, as well as the 6 street blocks between Arcadia, Grosvenor, Prospect and Festival Street. The Transition Zone comprises of the remaining blocks south of Pretorius, west of Glynn and north of Park Street, as well as the block directly north of Belgrave Square. The remaining part of the core area forms the Outer Zone.

It should be noted that due to the dynamic and volatile nature of the Core Area and the large scale of developments there, the proposals in the table below cannot always be strictly applied and deviations therefrom could occur if well motivated.



Source :ARC Achittects, Hatfield CID Framework, 2017

Developments which are directly linked to the Inner Zone street blocks by means of an air bridge (therefore negating the need for pedestrians to cross any streets), may also be regarded as part of the Inner Zone..



A more equitable approach would be to apply a sliding scale based on the erf size and location of a site to determine the FAR and height that will be supported for a particular development. This would strongly support the application of both the location and the site assembly principles.





Source :Respublica, Hatfield Square, 2016



Source :GASS, Hatfield Square 2016

### Embassy Precinct

The Embassy precinct is located along Stanza Bopape, Pretorius and Francis Baard Street to the west of the Core Area, and also includes the area along Park Street and in Arcadia Street between Festival and Hill Streets. A land-use mixture of residential, institutional, offices and limited retail at appropriate locations should be accommodated within this precinct, but at a much lower density than in the Core Area.



The nature of the Embassy Precinct differs markedly from that of the Core Area. There is no single focal point such as the Gautrain station, but the precinct acts more as a transition zone between the Core Area of the Hatfield Metropolitan Node and the Inner City along major traffic corridors such as Stanza Bopape, Pretorius, Francis Baard and Park Street. The mobility function of these routes needs to be strongly protected by allowing much less intense development than in the Core Area.

### Arcadia Street

The Arcadia Street precinct comprises Arcadia Street between Hill and Beckett Streets. This area has a unique conservation-worthy character, as recognised by the Arcadia Street Development Framework adopted in 2002.

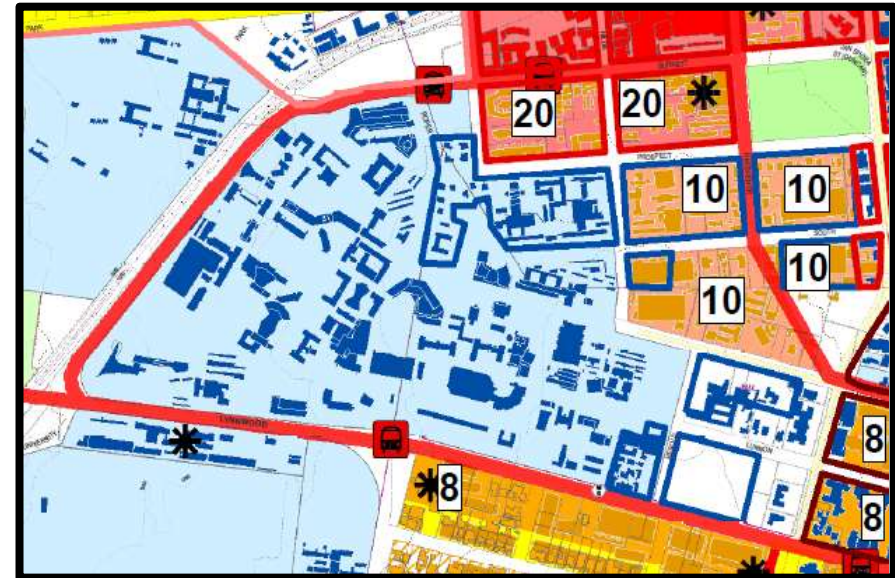
Land-uses similar to what is permitted in the Embassy Precinct (retail excluded), should be accommodated in this area, but with particular attention being paid to the low density conservation-worthy character of the precinct.

Development in the Arcadia Street Precinct is guided by the comprehensive Development Framework for Arcadia Street as approved by Council in 2002 (see Paragraph 5.1.4). The proposals of this plan is aimed at the conservation of the unique historic residential character of the properties along the street and allows for residential development at a maximum FAR of 0,6 and offices up to a FAR of 0,4. The existing historic buildings or at least the residential facades, the gardens and the fencing as seen from Arcadia Street should be retained as far as possible and no parking should be allowed between the buildings and the street. Not more than 2 storeys should be permitted near the street front although buildings of up to 4 storeys may be considered at the back (away from the street). Careful consideration should be given to proposed new developments on the properties in Francis Baard and Park Street which abut onto this precinct in order to discount its impact on the Arcadia Street Precinct.



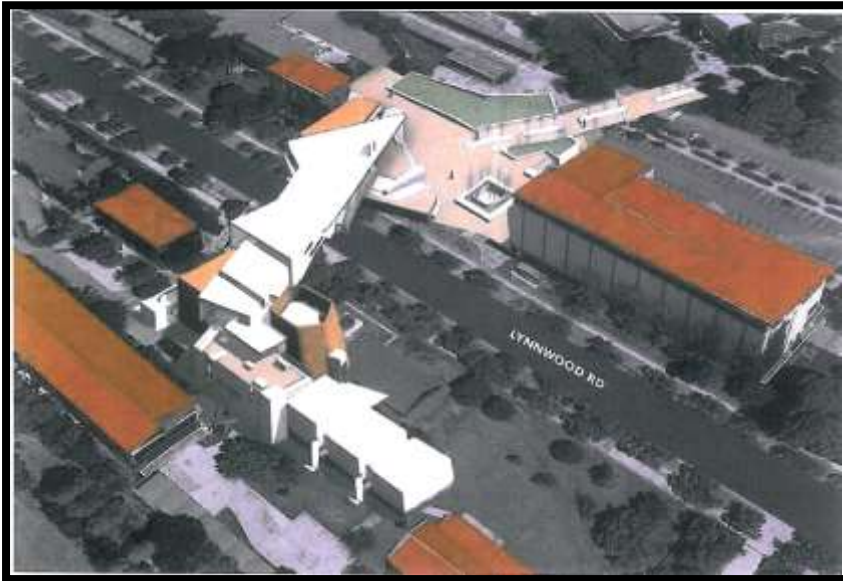
## University Precinct

The University precinct comprises the UP main campus and adjacent related land-uses such as the hostels and other student accommodation. High density residential as well as land-uses supportive of the university and its activities should be accommodated in this precinct.



Due to the boxing effect of the Core Area to the north, the railway line and Loftus rugby stadium to the west and Lynnwood Road/ Pretoria Boys High School to the south, the natural direction of expansion for the campus and its associated land-uses is towards the east. In this area up to Jan Shoba Street, preference should be given to high density student housing developments. The precinct is relatively close to the Gautrain station and will also eventually be served by two lines of the BRT system. The precinct displays characteristics similar to those of the Hillcrest precinct and the same development guidelines should therefore be applied in both

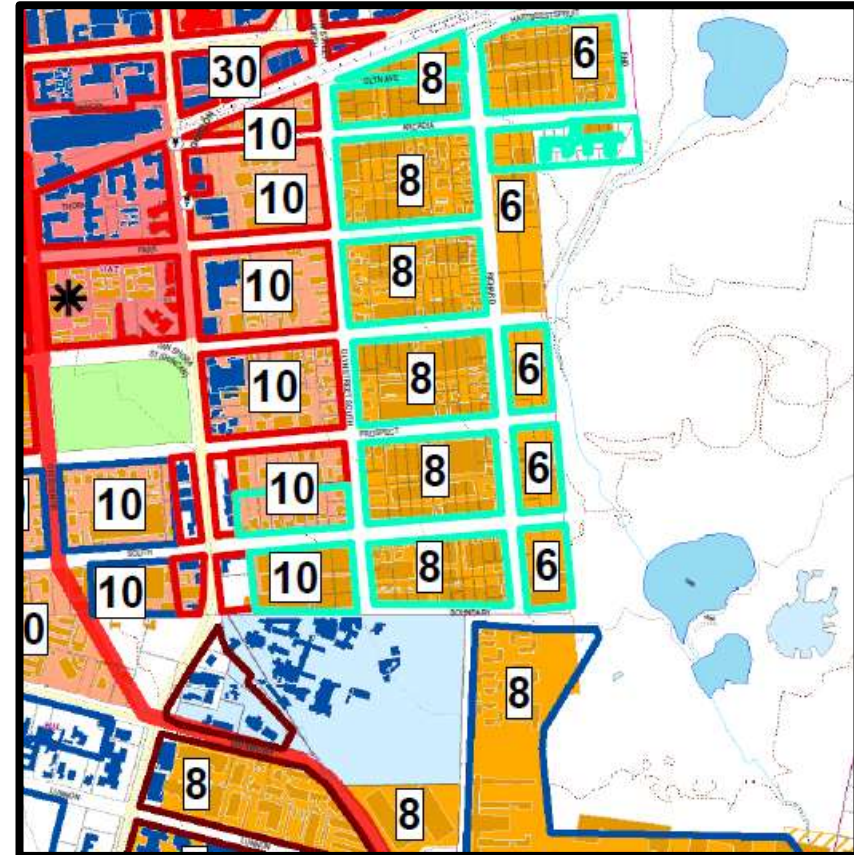




Source: University of Pretoria, Proposed Bridge over Lynnwood Road.

### Hatfield East

The Hatfield East Precinct is located to the east of Glyn Street, including a small area to the west of Glyn Street along South Street. The existing residential character of this area should be retained, but significantly higher densities must be achieved to support the optimal functioning of the nearby Gautrain station and the university. Densities should be scaled down towards the east (with increased distance from the Gautrain station), i.e. in the block between Jan Shoba and Glyn Street (part of the Core Area) development may be in excess of 10 storeys high, in the block between Glyn and Richard Street development should be less than 10 storeys high and to the east of Richard Street a maximum of 4 storeys may be considered. These height restrictions are to be further qualified by the site assembly principle.



The development of this precinct for higher density residential development (particularly aimed at the student housing market) is confirmed and strict enforcement should once again be given to the site assembly principle.



### Hillcrest

The Hillcrest precinct comprises of the remainder of the Hillcrest Township. Land uses similar to those in the Embassy Precinct should be supported in this precinct, as well as land uses supportive of the adjacent university and its associated activities.

The Hillcrest precinct displays certain qualities similar to that of the Core Area, such as a mix of retail, office and high density residential uses. The single residential component such as is found in the other peripheral areas like the Embassy and Hatfield-East precincts is however quite diminished. The precinct is also well-served with public transport routes, in particular the lines of the BRT that will be routed along Lynnwood Road and Duxbury Road. In addition, the precinct is very well located in relation to the university campus and therefore more dense development is proposed here compared to the Embassy and Hatfield-East precincts. Additional height may be attained by the provision of parking levels as parking is not included in the table for this precinct.



### Provision of parking

In general, on-site parking at all developments should be provided in accordance with Table G of the town-planning scheme (TPS). However, substantially reduced parking requirements should be considered in the Core Area to encourage the use of public transport.

The HESDF prescribed a parking ratio of one parking space per living-unit plus one parking space per 4 living-units for visitors. Based on the proximity of developments to the Core Area (and therefore to the hub of the public transport facilities), reduction of the parking requirements for residential units to less than one parking bay per unit may be considered.

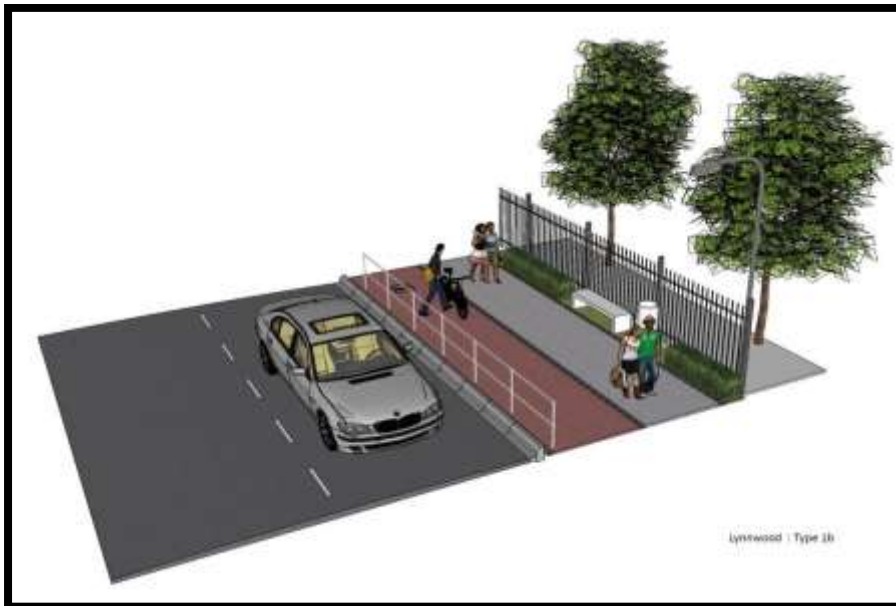
It may be noted that for a block of flats one parking bay per flat with three habitable rooms or less is required by Table G. By definition a block of flats consists of two or more dwelling-units and by definition a dwelling-unit may be occupied by a maximum of two unrelated persons (such as students). This requirement equates to 0,5 parking bays per single person and may



therefore also be applied to living-unit developments, particularly in locations such as the Core Area, near the university campus and close to public transport stations.

### NMT and Universal Access


The current car dominated culture is to be transformed into a public and non-motorised transport orientation. This implies limited provision for private vehicle movement and parking, and enhanced pedestrian and cycle movement in an environment where streets are not mere roadways, but vibrant physical settings for a variety of social settings.




Source: City of Tshwane, Lynnwood Landscaping and NMT  
 Emphasis will be on urban design and landscaping, and building aesthetics and streetscaping where future buildings do not passively occupy sites, but actively contribute towards the definition of adjacent streets, public square and open spaces to create a well-defined public domain.

### NMT and Universal Access Plan



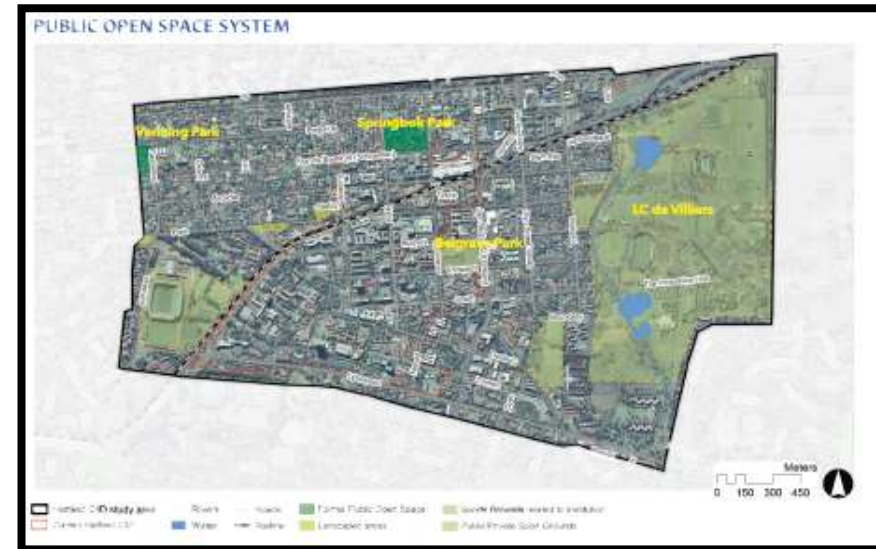
 Cycle Lane

 Pedestrian Lane

### Provision of recreational space

Clause 14(3)(a) of the TPS requires the provision of an on-site children's playground at a ratio of 4 m<sup>2</sup> per dwelling-unit on the site. It has been suggested that this requirement should refer rather to an outdoor

recreational area than to a children's playground. This amendment would be more applicable in an area such as Hatfield where many more single persons and students are accommodated (who incidentally also require recreational space) than traditional families with children. However, the prescribed ratio becomes somewhat problematic in the case of living-units which are occupied by a single person. By definition a dwelling-unit may be occupied by a maximum of two unrelated persons, which equates to a ratio of 2 m<sup>2</sup> of recreational space per person and this ratio may therefore be applied at developments consisting of living-units.



Source : Hatfield CID Framework, 2017

### Definitions

A living-unit is defined as “a habitable room which permits space for a single person to sleep, study and socialize and may include a kitchen and a bathroom or alternatively a communal kitchen and bathroom shall be provided for a number of adjacent living-units in the same building. A caretaker's flat shall be provided on the erf and shall at all times be occupied by a caretaker/manager of the living-units on the erf”. This definition is to be included in the revised TPS. The HESDF initially set a minimum size of 20 m<sup>2</sup> for a living-unit (kitchen and bathroom facilities excluded), but this requirement has been relaxed in many instances.

A caretaker's flat is already defined in the TPS. However, in the case of a development consisting solely of living-units, it is proposed that the following definition be used: “means a dwelling-unit for a person and his/her family who is responsible for the care and supervision of the other inhabitants, the land and the buildings on the erf. The name and contact details of the caretaker shall at all times be prominently displayed outside all entrances to

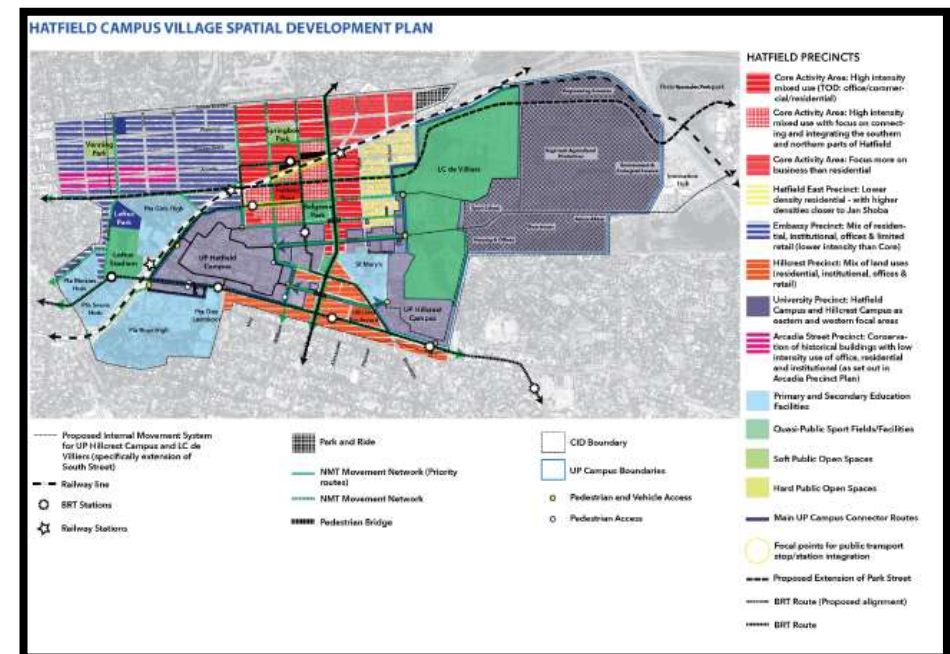


the property. A proxy caretaker shall be appointed and his/her name and contact details shall also be displayed on every occasion that the caretaker is absent from the property for a period of more than 24 hours". The motivation for this definition is that unruly behaviour, particularly at night time, is occasionally experienced at student accommodations and that a measure of supervision is required for such inconsiderate behaviour.

A new trend that has recently developed in the Hatfield-Arcadia East area is the development of comprehensive student housing establishments. This concept was born out of the pressing need for student accommodation which is being developed by the private sector, but managed by or on behalf of large educational institutions. Students are being housed in single or sometimes in double rooms, which have their own kitchen and bathroom facilities or alternatively with shared facilities. These establishments are required to have a Head of Residency dwelling-unit and may also include ancillary facilities, but no meals are provided as in the traditional hostels.



Unfortunately the concept of a student housing establishment does not fit any of the currently defined land-uses in the TPS and the following definition is therefore proposed: "means land and building consisting of habitable rooms for occupation by a single person/a maximum of two persons, each room either with its own or with shared kitchen and bathroom facilities, and it shall include a Head of Residency dwelling-unit and may in addition include ancillary and subservient uses such as administrative offices, a caretaker's flat, communal study and computer facilities, laundry facilities, cafeteria and gymnasium and other recreational facilities for exclusive use by the employees and residents on the property".





### 5.1.8 SAULSVILLE NODE

The Saulsville Node has been identified as a Metropolitan Urban Core and as such has a high status within the metropolitan spatial structure. The node is linked to public transport facilities such as rail and taxis. This node is linked with the Atteridgeville Station Node, to the east, and also to the Lucas Masterpieces Moripe Stadium, to the south; this linkage results in a triangular shape. These three anchor areas have huge potential for business opportunities. The Saulsville station, especially to the north-east of the station, has vacant land on which there is a proposal for a 20 000 square meters proposed neighbourhood centre on the corner of WF Nkomo Street and Tlou Street, and the area to the south of the Saulsville station has a potential for redevelopment and could also accommodate another small scale retail component.

The Lucas Masterpieces Moripe Stadium Nodal area is located at the core of Atteridgeville township, which makes it ideal for retail development. It also has anchors such as municipal offices, a police station and the Magistrates Court. Recently a small scale shopping centre has been developed, known as the Atteridgeville Retail Plaza development. It comprises a shopping centre of about 4 500 square meters. The Atteridgeville Station Nodal area is more of a sports and leisure nodal area. It is located close to a municipal resort to the north-west of the station and a proposed bird sanctuary directly to the north of the station. To the south of the station is a sports complex called Mbolekwa Sports Grounds, with a soccer field and a cricket pitch. There is also a possibility of introducing a small scale retail centre on the municipal owned land located on the corner of Sithole and Moroe Streets.

The Saulsville node is diverse and has huge potential for growth and expansion. However there is still a need for linking this node with the Lotus Gardens via a pedestrian bridge over the N4, to the north of the node and also a need for another pedestrian link over the railway station between Saulsville township and the proposed neighborhood shopping centre, on the Corner of WF Nkomo Street and Tlou streets, in order to maximize on the area's potential pedestrian link.



Source: City of Tshwane, Saulsville Node, Holm Jordaan 2017

### 5.1.9 INTEGRATED COMPACTION AND DENSIFICATION STRATEGY FOR PRETORIA WEST RESIDENTIAL PRECINCTS

This document was compiled in 2008 and approved by Council. The document was revised in 2011. Pretoria West is strategically located adjacent to the CBD and is experiencing strong development pressure to convert its historic residential function to other land-uses. The broad aim of the plan is to protect the residential character of the few remaining residential pockets in Pretoria West, while also providing guidelines for mixed land use development along the activity streets in the precinct, such as WF Nkomo Street, Vom Hagen Street, Rebecca Street, Charlotte Maxeke and Soutter Streets.

#### 5.1.10 MENLYN NODE AND SURROUNDING AREAS SDF

Essentially, the node plan supports the goals and objectives of the RSDF. The plan makes provision for high density residential and mix use development on the western side of the N1. The SDF for the study area is based on a range of development objectives/principles that need to be achieved as part of the development of the study area in future.

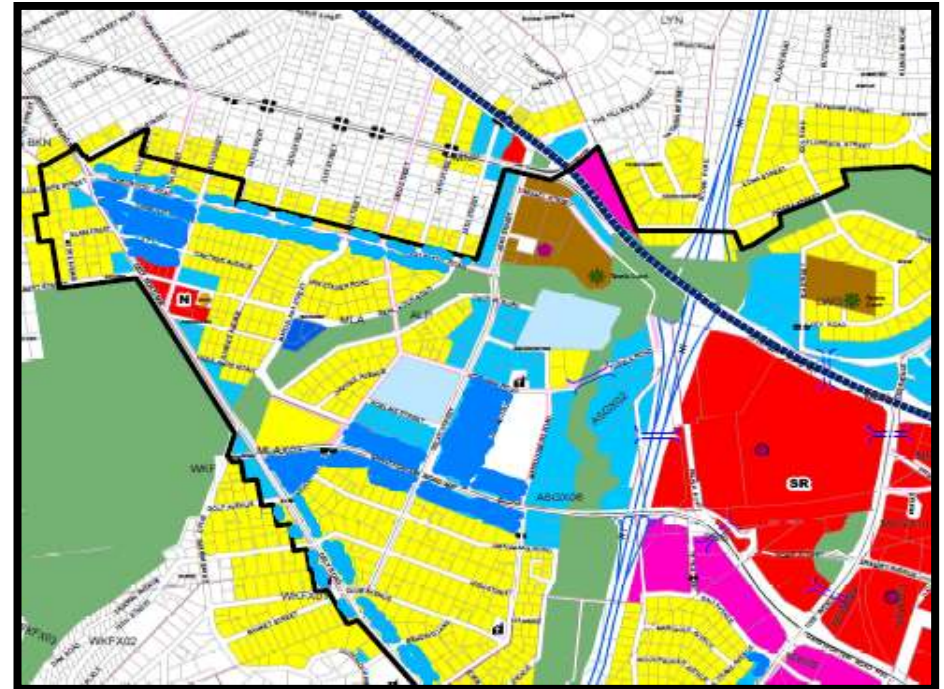
The framework serves to guide the development process in the study area in a logical, cost effective and sustainable manner – both in its local and in its regional context in order that the area develops in a sustainable manner. It is in this regard that the Menlyn Node and Surrounding Areas: Spatial Development Framework (MNSUDF) has as its function to:

- Allow for the expansion and intensification of economic, social and residential activities in the Menlyn Node in order for the node to develop into a fully-fledged Metropolitan Activity Node and Transport Orientated Development Node (See Chapter 4).
- Protect, enhance, and improve the functionality of the entire regional open space system in the area.
- Protect and expand the existing community facilities in the Menlyn Node and surrounds in order to serve the social needs of the current and future population residing in the area.
- Upgrade and maintain the movement network in the study area not only to facilitate the efficient movement of various public and private modes of transport within the node, but also between the Menlyn Node and other activity nodes in the City of Tshwane and Gauteng Province.
- Enhance public transport facilities and services (bus, taxi, BRT and Gautrain feeder system) in and around the Menlyn Node, and provide for easy and safe pedestrian movement and access to these facilities.
- Alleviate the pressure for horizontal expansion of economic activities into surrounding residential areas by focusing on optimally utilising the vertical space available in the Menlyn Node.
- Promote residential redevelopment and densification around the Menlyn Node and create a natural buffer of high value (financial and

social) residential development around the Menlyn Node in order to prevent the horizontal expansion of business activities, and to rather promote the vertical expansion of the node.

- Facilitate the sustainable development of the Menlyn Node by way of ensuring the incremental expansion and continuous maintenance of engineering services in the node and surrounding areas.

Densities in the Menlyn Node will be guided by the density as contained in Part 4 of this document and as indicated on the density maps of Regions 3 and 6. Height controls as per height plan for Line B in Region 3 and 6, will be applicable. .

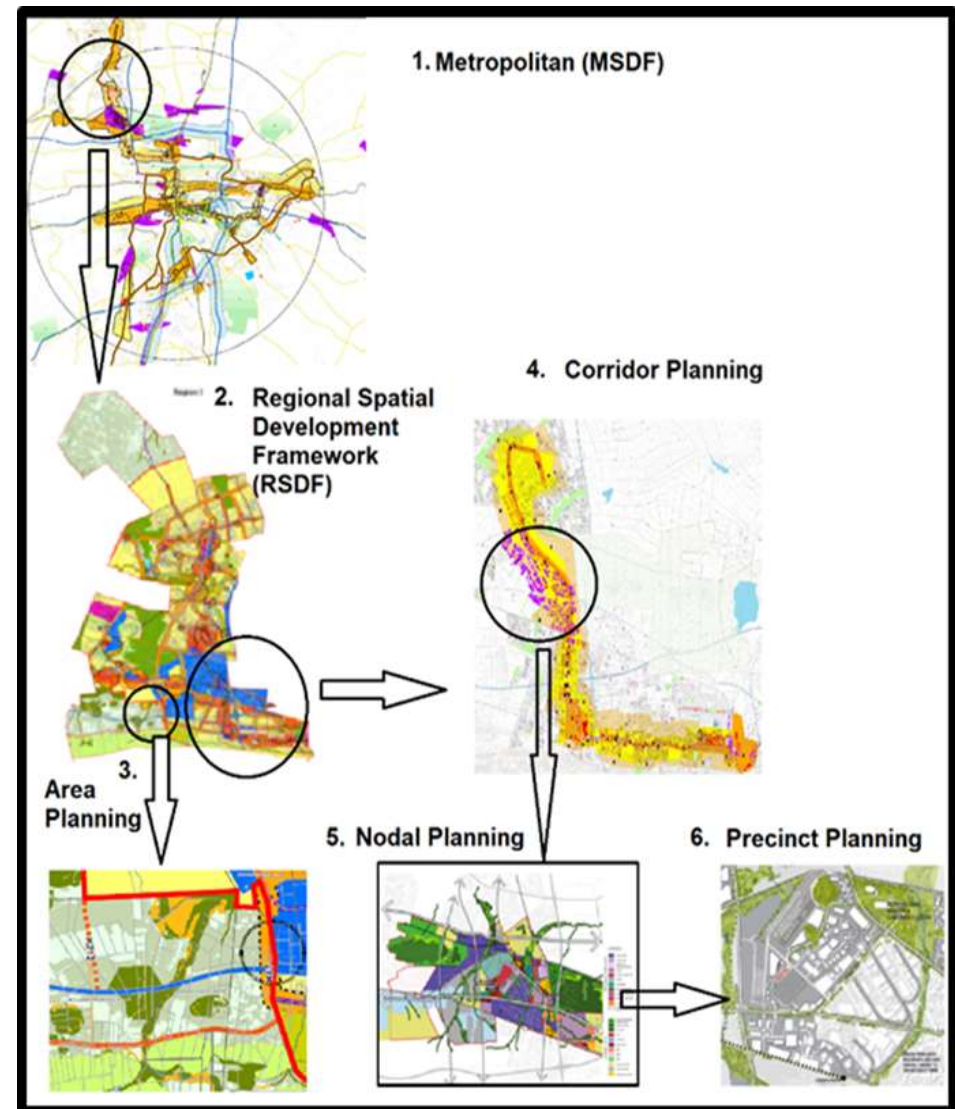




## 5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

Different levels or tiers as well the scale of planning within Tshwane are based on the following principles.

1. **Metropolitan (MSDF)** – Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.
2. **Regional Spatial Development Framework (RSDF)** - Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of a Region.
3. **Area Planning** - The focus of this level of planning will be on a specific area within a Region which is under development strain, for example the Future Development Area within a Region as indicated in the RSDF.
4. **Corridor Planning** - Integrated transport and land uses planning will be the focus of the spatial planning at this level. The aim of the plan will be to promote land development along transit corridors with the goal to optimise the utilisation of transport. Urban design will play an important role at this level.
5. **Nodal Planning** - Nodal planning focus on intensity, mix and clustering of land uses within a node, which normally forms part of larger Corridor development. The aim of the plan will be to determine the desired density and mix of land uses within a node or precinct. Urban design will play an important role at this level.
6. **Precinct Planning** - The precinct plan is regarded as the most detail level at which spatial planning is done. The plan must ensure appropriate urban design, for the effective integration of infrastructure and facilities within a larger node or corridor. Precinct planning can also take place for specific activity corridors or Activity Streets within a Region and which are not related to development corridors.



The following plans are considered as Precinct Plans which are required to guide the development of specific precincts within Region 3.



### 5.2.1 CITY WIDE POLICY PRIORITIZATION

Spatial Policy	Purpose	Changes in planning Context
Update of the Tshwane Town Planning Scheme, 2008 to be in line with the Proposals of the Rationalized Spatial Development Frameworks.	To align with the 7 Regionalized Framework and Tshwane Town Planning Scheme, 2008 / LUM system.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.
Update of the MSDF 2012 to be in line with the Spluma and Bylaws.	To align with the 7 Regionalized Plan and MSDF.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.
Update of the Tshwane Open Space Framework.	As per legislation.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.
Update of the Tshwane IRPTN operational plan.	To align with the 7 Regionalized Plan and IRPTN.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city in terms of the IRPTN.
City Wide Urban Design Guidelines	To establish spatial guidelines different areas within the City for example, TOD's, industrial, mixed uses, high density residential areas.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.
TOD development Guidelines	To Guide Planning and Densification and Mixed use around TOD's including Public open spaces and social facilities. Focus must be on the public space and streets.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.
Parking Standards for TOD in the City of Tshwane.	To Guide Parking standards and rates around TOD's.	Planning / interventions at this scale will focus on policy and long term visions regarding the spatial structure of the city.

### 5.2.2 REGION 3 PRIORITY.

Spatial Policy	Purpose	Changes in planning Context
Hatfield Urban Design Framework for public space and streets.	To guide Planning and Densification and Mixed land uses in the precinct. Focus must be on the public space and streets.	Guidelines for Densification and Mixed land use Including transport and nmt
Spatial Development Framework / Urban Design Framework for BRT Line 1 A.	To Guide Planning and Densification and Mixed use along the BRT including Public open spaces and social facilities. Focus must be on the public space and streets.	Guidelines for Densification and Mixed land use Including transport and nmt
Spatial Development Framework / Urban Design Framework for BRT Line 2 A.	To Guide Planning and Densification and Mixed use along the BRT including Public open spaces and social facilities	Guidelines for Densification and Mixed land use Including transport and nmt
Spatial Development Framework / Urban Design Framework for BRT Line 2 B.	To Guide Planning and Densification and Mixed use along the BRT including Public open spaces and social facilities	Guidelines for Densification and Mixed land use Including transport and nmt
Arcadia North, Eastclyfe, Eastwood, Kilberry and Lisdogan Park	To Guide Development in these areas such as densities and Mixed land uses offices etc.	Guidelines for Development and Mixed land uses such as offices
Lotus Gardens and Fort West Precinct Plan	To improve the linkages between the 2 township as they will function as one. Focus must be on the public space and streets.	The expectation is that the precinct plan must detail the linkages between the two areas and links through public transport and nmt, open spaces as the area is densifying
Marabastad and West Capital Precinct	To Guide Planning and Densification, Mixed use and Public Transport including Public open spaces and social facilities.	Guidelines for Densification and Mixed land use including transport and nmt
Koedoespoort Industrial Area Management	Exploit the existing economic infrastructure to create job opportunities.	Guidelines for Mixed land use including transport and nmt.
Eugene Marais Hospital Precinct	Management of Medical Facilities in area and surrounding residential Area.	Guide the expansion of the medical facilities and the surrounding residential character. Provide development guidelines in relation to vehicle, and pedestrian movement as well as structural placement.
A precinct plan for the Council property in Menlo Park/Ashlea Gardens on 26 <sup>th</sup> street.	Management of Club Facilities in area and surrounding residential Area. Focus must be on the public space and streets.	Provide development guidelines and space allocation in relation to vehicle, and pedestrian movement as well as structural placement.

Hazelwood Node Urban Design Framework for public space and streets.	Management of mixed uses in area and surrounding residential Area. Focus must be on the public space and streets.	Provide development guidelines and space allocation in relation to vehicle, parking and pedestrian movement.
Salvokop Urban Design Framework	To establish spatial guidelines for future Salvokop developments.	Guidelines for Mixed land use including transport and nmt.

### 5.3 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Arcadia Street SDF	Approved	2002	Guidelines regarding development of Arcadia Street	Status Quo remains	To be retained
Andeon SDF	Approved	2009	Guidelines regarding the development of Andeon	Status Quo remains	To be retained
Atteridgeville and Lotus Gardens SDF	Approved	2010	Guidelines regarding the development of Atteridgeville and Lotus Gardens	Status Quo remains	To be retained
Hatfield East SDF	Approved	2003	Guidelines regarding the development of Hatfield East	Re-planning with Gautrain station and BRT influence	Withdrawn and replaced by 2013 RSDF – see Paragraph 5.1.7
Groenkloof SDF	Approved	2005	Guidelines regarding the development of Groenkloof	Principles of 2008 RSDF incorporated into 2012 RSDF	Withdrawn and replaced by 2013 RSDF – see Paragraph 5.1.5
Brooklyn Node SDF	Draft		Guidelines regarding the development of the Brooklyn node	Development in general	To be used as guideline
Hatfield Urban Development Framework and CID Framework	Draft		Guidelines regarding the development of the Hatfield node	Development in general	To be used as guideline
INTEGRATED DEVELOPMENT FRAMEWORK FOR DUNCAN STREET, LYNNWOOD ROAD, CHARLES STREET, ATTERBURY ROAD, GARSFONTEIN ROAD AND DUXBURY/ BROOKLYN/ DELY ROAD	Approved	2001	Densification & mixed use	Densification and Compaction Strategy to replace policy. BRT Planning and nodes and corridors strategy.	Withdrawn and replaced by RSDF 2013: See 4.5 and 4.6
Pretoria West Local Spatial Development Framework	Draft		Guidelines regarding the development of the Pretoria West	Development in general	To be used as guideline



# Region 3



## LEGEND

### Density

- Transit Zone
- Local Nodes
- Transport Oriented Development
- Transport Corridor (BRT phase 1)
- Future BRT Routes
- 500m Walking Distance (200ha)
- 800m Walking Distance (120ha)
- Linear Zone
- High Density
- Suburban Density
- Low Density Zone
- Low Density Zone

- Main Rural Roads
- Game / Nature Reserves
- High Potential Agriculture
- Sensitivity Protective Areas
- Coastal Buffer Zone
- Development Edge
- Future Urban Development Areas
- Community Service Centre
- Biodiversity Zone
- Rural

### Land Use

- Community
- Mixed Urban
- Office
- Airport
- Campus
- Future Nodes
- Future Regional Centre
- Industrial
- Retail
- Educational
- Mining

- Water Shed / Development Edge
- Urban Edge 2013
- CBD 25 km Radius

- Community Service Centres
- Community Service Centre
- Proposed Rural Service Centre
- Rural Service Centre

### CBA Categories

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2
- Other Natural Area
- Protected Area (Private)
- Proposed BPTN
- Railway
- Proposed Railway
- Proposed Station
- Landfill

### Highways

- Existing
- Proposed
- Activity Spine
- Existing
- Proposed
- Activity Street
- Existing
- Proposed
- Mobility Spine
- Existing
- Proposed
- Mobility Road
- Existing
- Proposed

### Roads Masterplan CLASS

- U1 Class 1, Primary metropolitan distributor
- U2 Class 2, Metropolitan distributor
- U3A Class 3A, District distributor
- U3 Class 3, District distributor



## PART SIX: REFERENCES

- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Cape Town, **Municipal Spatial Development Framework (MSDF) Draft**, 2017
- City of Johannesburg, **Complete Streets**, April 2013.
- City of Tshwane, **Integrated Development Plan 2017/2021**, May 2017.
- City of Tshwane, **Built Environment Performance Plan (BEPP) 2017/18**, May 2017.
- City of Tshwane, **Draft Built Environment Performance Plan (BEPP) 2018/19**, March 2018.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Hatfield Draft Masterplan**, March 2014.
- City of Tshwane, **Hatfield Spatial Development Framework**, 2014.
- City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.
- City of Tshwane, **Menlyn Spatial Development Framework**, 2012.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Density and Intensification Guidelines**, March 2014.
- City of Tshwane, **Saulsville Spatial Development Framework**, 2016.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- City of Tshwane, **West Capital Spatial Development Framework**, 2014
- Gauteng Province, **Gauteng Spatial Development Framework: 2030**, 2016.

Gauteng Province, Gauteng Environmental Management Framework, 2014.  
Gauteng Province, **Gauteng 25 Year Integrated Transport Master Plan** : November 2013

Gauteng Province, **Biodiversity Plan** : 2016

Hatfield City Improvement District, **Spatial and Institutional Development and Management Framework for the Hatfield Campus Village**: July 2017

ITPD, **The Transit Orientated Development Standard**, New York, 2015.

RSA, **National Development Plan: 2030**, National Planning Commission. 2013

RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.

RSA, **Urban Hub Design Toolkit**: National Treasury. 2013

RSA, **National Department of Agriculture, Norms and Standards for Land uses Change**: 2016

World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable Urban Development**, January 2013.

## **Acknowledgements**

RSDF Technical Review Committee:, Adetunji Adebayo, André du Plessis, Lizelle van Staden, Annemarie Loots, Ashok Sudu, Fulufhelo Mathobo, Gawie Makkink, George Onatu, Gerrit Jordaan, Louis van der Walt, Ida Breed, Josiah Lodi, Makgorometje Makgata, Marianne de Klerk, Marinda Schoonraad, Mike Krynauw, Ntokozo Zuma, Peter Dacomb, Samuel Osei, Siobhan Muller, Sphiwe Masango, Tiisetso R. Mdovu, Tricia de Lange, Viljoen du Plessis, William Bila, Zashé T. Pheeha

## **Mapping**

Charlotte Smart, Lizelle van Staden

## **Legal Input**

Nicolene le Roux