



CHIEFTON FACILITIES MANAGEMENT (PTY) LTD

CITY PLANNING PROJECTS
CITY OF POLOKWANE CBD DEVELOPMENT FRAMEWORK

STAGE 5:
IMPLEMENTATION & URBAN MANAGEMENT STRATEGY

Date: March 2024

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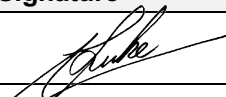

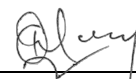


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4 ABBREVIATIONS

ABC:	Arial Bundle Conductor
CBD:	Central Business District
CITP:	Comprehensive Integrated Transport Plan
CoP:	City of Polokwane
GDP:	Gross Domestic Product
GVA:	Gross Value Added
IDP:	Integrated Development Plan
IRPTN:	Integrated Rapid Public Transport Network
LED:	Local Economic Development
LM:	Local Municipality
LUMS:	Land Use Management Scheme
MFMA:	Municipal Finance Management Act
MSA:	Municipal Systems Act
NMT:	Non-Motorised Transport
PHDA:	Priority Housing Development Areas
PRASA:	Passenger Rail Agency of South Africa
PUDF	Polokwane Urban Development Framework
SDF:	Spatial Development Framework
SLA:	Service Level Agreement
SoE:	State Owned Entities
UDF:	Urban Development Framework
UDZ:	Urban Development Zone
WWTP:	Wastewater Treatment Plant

5 INTRODUCTION

Chiefton Facilities Management (Pty) Ltd, were appointed by the City of Polokwane (CoP) on the 29th of March 2018, with the Service Level Agreement (SLA) being finalised in November 2021, to prepare a Central Business District (CBD) Framework.

This version of the DRAFT REPORT is a Work-In-Progress and shows work completed up to **The Preliminary CBD Urban Development Framework**.

Refer to:

Diagram 1: The City of Polokwane Municipal Boundary

Diagram 2: The Polokwane Central Business District

Polokwane is the economic, political, and administrative capital of Limpopo Province. The is 188 ha in extent and is the core of Polokwane City offering the most extensive and diverse economic opportunities and social facilities in the province.

The **CBD Development Plan** of 2005 guided development for a period of 10 years, which was then reviewed in the **Polokwane Local Municipality (LM) CBD Plan and Urban Renewal Strategy Report** of April 2016.

The purpose of this CBD Urban Development Framework (UDF) is to review and update the 2005 and 2016 plan, addressing the current developmental needs and challenges of the CBD, over the short to medium term.

5.1 CLIENT REQUIREMENTS

A revisited CBD UDF for the CoP should facilitate and guide:

- urban regeneration of the city and its surrounding areas,
- increased investor confidence,
- job creation for youth, SMMEs and women,
- organised service delivery,
- locating of business opportunities.

In doing so the development potential of the CBD is unlocked, thereby making a significant contribution to the long-term development goals of the region in general, and the city in specific.

The objective of the Framework is to provide Polokwane City with a spatial and management plan targeted at unlocking economic opportunities, promoting physical renewal, and stimulating social upliftment.

5.2 AIMS AND OBJECTIVES

The Framework is a planning and management tool that aims to unlock the development potential of the CBD over the long-term. It guides the municipality in facilitating:

- strategic development decision making,
- directing expenditure,
- planning and building applications approvals,
- coherent integration of proposals between the various departments of the Municipality, service providers, private partners, and other spheres of government,
- spatial solutions to developmental issues - offering certainty and clarity to investors.

The Framework needs to be:

- robust, engaging all role players' critical development and project responses,
- flexible enough to recognise new ideas and respond to changes in market demand and the political, social, and legislative environment over time,
- viewed as a 'living document' which requires monitoring and updating on a continuous basis to ensure long-term CBD sustainability.

This approach supports a high-quality aesthetic and functional environment that is economically feasible, market led, socially acceptable and environmentally sustainable over the long term.

The objective is to elevate Polokwane to a world-class city by attracting investment and providing:

- a more vibrant city centre,
- greater access to improved social facilities and urban amenities,
- more inclusive and liveable neighbourhoods,
- housing capable of accommodating a growing population.

5.3 THE PRODUCT

The CBD Urban Development Framework is not a Spatial Development Framework, which is a legal requirement for all Municipalities in terms of the Municipal Structures Act, 2000, but prepared under a separate appointment.

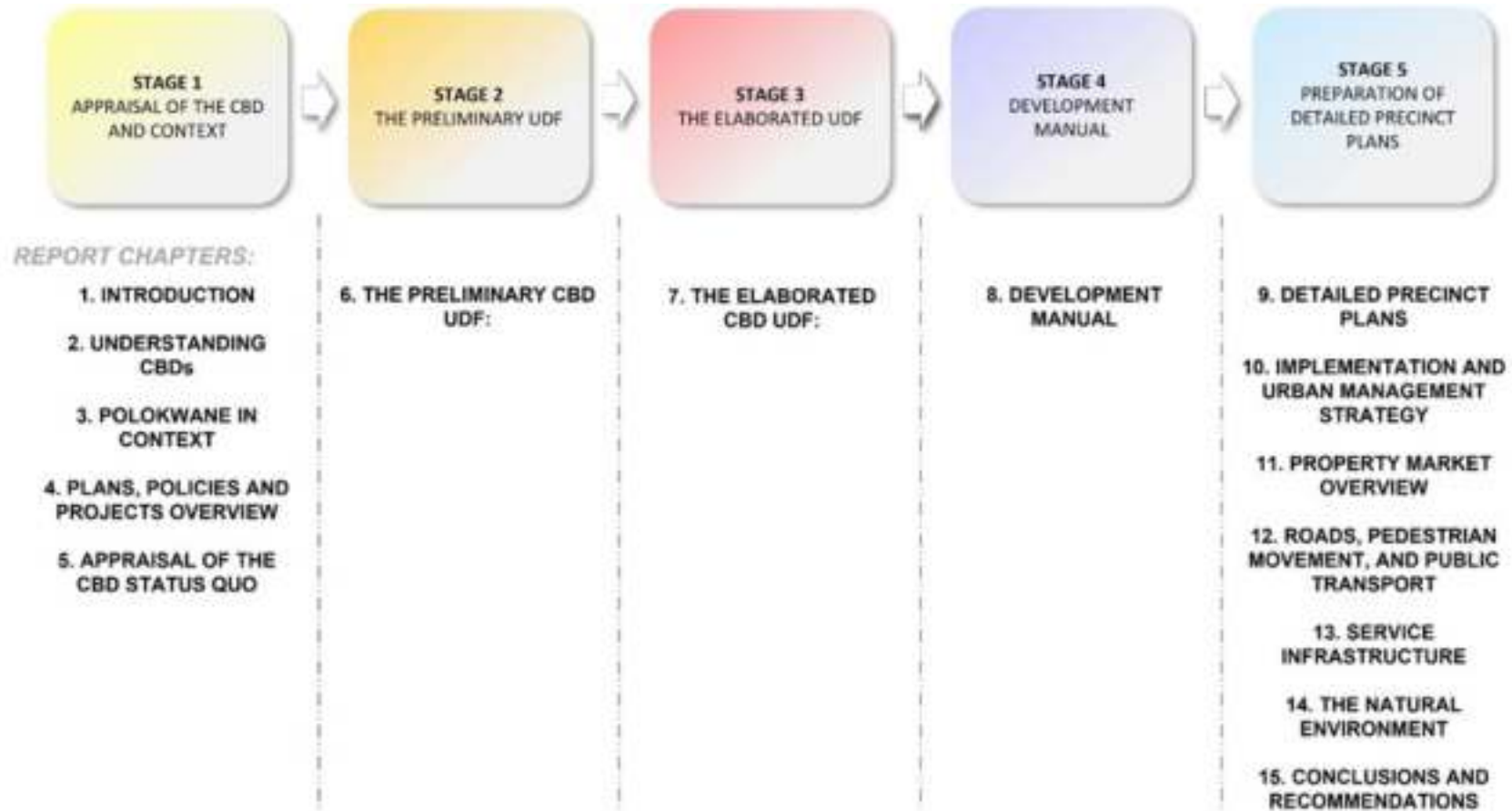
The product is a '**principle-based, guidance document**' identifying projects to be incorporated into the SDF, Land Use Management System and IDP, to ensure they receive appropriate budget allocations. This makes the UDF legally binding and ensures its implementation.

5.4 THE PROCESS

The UDF is a collaborative process, characterised by close client and professional team communication, and broad consultation throughout the project period.

5.5 STRUCTURE OF THE REPORT

The project is undertaken in stages to allow for periods of review and approval and is divided into the following chapters:



The content of these Stages is elaborated on as follows:

Stage 1: Appraisal of the CBD and Context

(Chapter 1: Introduction, Chapter 2: Understanding CBDs, Chapter 3: Polokwane in Context, Chapter 4: Plans Policies and Projects Overview and Chapter 5: Appraisal of the CBD Status Quo).

In this stage:

- the role of CBDs is understood.
- a study of the site in relation to its wider context,
- a review of existing, relevant plans and policies,
- a status quo of the current situation is undertaken and
- key issues, problems and needs are identified.

Stage 2: Preliminary UDF

(Chapter 6: the Preliminary UDF)

In this stage:

- a high-level, **Conceptual Development Framework** outlining key land uses, roads and movement patterns and open space network is prepared and
- the concept is used for consultation purposes and inputs addressed.

Stage 3: Elaborated UDF

(Chapter 7 the Elaborated UDF)

In this stage:

- an **Elaborated Development Framework** is prepared that presents a long-term development vision for the CBD I and
- a **Land Use Budget** quantifying the CBDs development potential is prepared.

Stage 4: Development Manual

(Chapter 8: Development Manual)

In this stage:

- a **Development Manual** that sets out a series of design proposals and controls for the public environment and key buildings is prepared to ensure the development vision is complied with.

Stage 5: Detailed Precinct Plans

(Chapter 9: Precinct Plans, Chapter 10: Implementation and Urban Management Strategy, Chapter 11: Property Market Overview, Chapter< Chapter 12: Roads, Pedestrian Movement and Public Transport), Chapter 13: Service Infrastructure, Chapter 14: The Natural Environment, Chapter 15: Conclusions and Recommendations)

In this stage:

- detailed **Precinct Plans** for key focus areas or sites within the CBD are prepared,
- an Implementation and Urban Management Strategy is undertaken comprising:
 - an implementation action plan,
 - a list of priority projects for implementation and
 - an urban management strategy outlining procedures to ensure adequate maintenance and management is undertaken and quality is ensured.

- a realistic **3D Digital Model** illustrating the anticipated look and feel of the CBD when fully developed is prepared.
- **Specialist Studies** are prepared for:
 - property market economy
 - roads, pedestrian movement, and public transport,
 - service infrastructure,
 - environmental, and
- key recommendations for the city to consider for the long-term management and development of the CBD are identified.



Diagram 1: The City of Polokwane Municipal Boundary



Diagram 2: The Polokwane Central Business District

6 UNDERSTANDING CBDs

The development of an appropriate Urban Development Framework (UDF) for the revitalisation of the CBD is influenced by the understanding gained of the area's current and historic role and performance. The role of a CBD and the principles that support its regeneration must be understood in relation to its socio-economic context.

6.1 UNDERSTANDING THE ROLE OF CBDs

In the broadest terms, CBDs are:

- places of exchange,
- the symbolic heart of their hinterlands,
- investment locations,
- rates revenue generators,
- places where transformation of socio-economic conditions can be expressed and spatially addressed.

CBDs are the heart of the non-industrial economy of most towns and cities and make a significant contribution to the rates base of most municipalities. They are products of the hinterland they serve and of the socio-economic conditions and needs of the population they serve. The hinterland is the source of wealth, ideas, activity, resources, and environmental character which enables the emergence of a place containing the mix and concentration of goods and services necessary for its sustainability.

A CBD's health or condition is inextricably linked to the nature, extent, and condition of its hinterland. It is therefore not an independent entity managed in isolation of wider socio-economic, socio-cultural, and socio-political trends and influences.

6.2 UNDERSTANDING CHANGE IN CBDs

The concept of change in CBDs assumes a functional shift in the use and demand of CBD space. The concept of CBD decline assumes a constant functional role, but a reduction in the demand for this functional role. In the case of decline, reduction in infrastructure and service investment corresponds to fixed use and function.

There is some debate in South Africa about the extent to which change, or decline has characterised the CBD of various cities and towns. Internationally and locally, change in CBDs are characterised by certain common factors, including:

- creating new, relatively inaccessible, and elite decentralised/suburban development,
- increased 'informalisation' of the CBD,
- concentration of crime in the CBD,
- rehabilitation of limited, elite enclaves with tight security,
- gentrification, displacing the poor in select CBD neighbourhoods,
- technological advancements (cell phones, laptops etc),
- parking and traffic problems,
- entrepreneurs taking advantage of the evolved CBD market, access to passing trade, incubators of activity, dense populations, and related enterprises.

6.3 THE CHALLENGE OF URBAN REGENERATION

The aim of urban regeneration is to enable the CBD to become the focal point of the city and province. This is done by making sure it:

- is highly accessible,
- attracts and accommodates the full spectrum of citizens, visitors,
- provides goods and services to the population it wishes to attract,
- includes the night-time economy into its daily activities,
- offers a full range and variety of activities associated with vibrant and active CBDs including civic services, work opportunities,

commerce and business opportunities, residential precincts, recreational and entertainment facilities, social amenities, and programmable public open space (i.e., used for event, civil functions, gatherings etc.).

6.4 THE 'DO-NOTHING' OPTION

Although it is a daunting, long, and expensive task to revitalise a CBD, the do-nothing option must not be supported because:

- of the magnitude of public funding and private investment in infrastructure and services already in place in the CBD,
- if a CBD is non-functional, it cannot support its hinterland, which in turn also becomes non-functional,
- it is not in the public interest to allow decay at such a large scale considering the economic opportunities and social services the CBD makes accessible to all, which are not available elsewhere.

Some argue that CBDs could be left to their own devices when demand and development energy moves to the suburbs and other out-of-town locations. Rather than addressing the impact of diminishing CBD investment, new economic sectors enjoy the competitive advantage in employment patterns associated with sectoral shifts within the national economy.

It can also be argued that suburban development often occurs at the expense of the CBD. If there is to be genuine commitment to the CBD's regeneration, then development should be restricted elsewhere.

6.5 THE PRINCIPLES OF URBAN REGENERATION

Municipalities should be guided by responsive, overarching development principles. These include:

Get the Basics Right

Providing basic services like security, cleaning and maintenance is crucial for urban regeneration. Safe, clean, and well managed urban environments are associated with higher rents, lower vacancies, higher land and property values, and an increase in visitors.

Start Small in a Big Way

An important principle of urban regeneration is to focus development energy into specific areas to obtain the maximum benefit. Spreading investment too thinly decreases potential market responses to fully realised improved conditions, in turn diminishing regeneration intent. Maximum impact must be the goal of each identified project.

Build Public and Investor Confidence

To attract people and investment back to the city, they must have confidence in the CBD's regeneration. This is achieved through implementing specific and impressive projects. Such projects must make a visible difference early in the process. The CBD needs to become a place to be and to believe in. The framework itself should be seen as the start of a new era for the CBD and involving the public in the process is essential in building confidence.

Support Existing Businesses and Establish New Markets

In addition to supporting existing markets, new markets must be explored and developed. A continuous updating of urban strategies around urban challenges assists in identifying growth opportunities. Maintained infrastructure, technology and flexible uses attract entrepreneurs to increase the use of the CBD beyond the current eight-hour five-day week, toward twenty-four hour seven days a week world-class inner city. A bustling urban core has a competitive edge over competing, decentralised locations with a lessor mix of use.

Provide Social Services and Public Transport

A CBD is not only the source of economic opportunity, but also the provider of social services for the broader population – spread over a wide hinterland. It needs to be highly accessible through a range of transport options – especially safe, public, and pedestrian movement serving the most vulnerable sectors of the population. Through an equitable movement network, citizens can reach essential economic opportunities, and social and healthcare services.

Create an Attractive and Safe Public Environment

The public realm is the focus of democratic public activity and community life. It needs to be attractive, and a place people enjoy spending time in. The streets should not just accommodate vehicles and service infrastructure but be a place in which pedestrians feel secure and encouraged to linger. The balanced built environment includes active and programmable parks, squares and open spaces for workers, commuters, visitors, and residents. Projects for improving public space and CBD ambiance are the basis for securing private sector investment, and vital to attracting visitors.

7 POLOKWANE IN CONTEXT

Source:

Polokwane LM CBD Plan and Urban Renewal Strategy Final Report (April 2016)

www.polokwane.gov.za

Polokwane, formerly known as Pietersburg, is the capital of Limpopo Province and is South Africa's largest urban centre north of Gauteng.

7.1 HISTORIC DEVELOPMENT OF POLOKWANE

Refer to:

Diagram 3: Historical Development of the CBD

The town was founded in 1886 and named 'Pietersburg' after Voortrekker leader Petrus (Piet) Jacobus Joubert.

The site of the city was initially owned by the Zuid Afrikaanse Volksraad who purchased the farms Sterkstroom and Sandrivier in 1884. On the 31st of July 1886 Landdros (Magistrate) Dietlof Siegfried Mare wrote his first official letter from the magistrate's court and the town was officially recognised. The main street through the city centre is known as 'Landdros Mare Street' to this day.

The town officially became a city on 23 April 1992. On the 25th of February 2002, the government declared the new name as the City as Polokwane, a Northern Sotho name for 'Place of Safety'.

The British built a concentration camp at Pietersburg during the Boer War to incarcerate almost 4,000 Boer women and children.

The city was host to the 52nd national conference of the African National Congress, held in December 2007 and saw Jacob Zuma voted in as President of the ANC at the time.

7.2 SPATIAL CONTEXT

Refer to:

Diagram 4: Polokwane Districts and Municipalities in their Provincial Context

Diagram 5: The CBD In Relation to the City

Diagram 6: Transport Connections

Introduction

The Polokwane Municipality is located within the Capricorn District in the Limpopo Province of South Africa. It shares its name with the City of Polokwane and is a Category B (Local) municipality. It is one of four municipalities in the district, making up just under a quarter of its geographical area. It hosts the largest and most diverse concentration of economic activity in the province and consists of 45 demarcated wards.

Polokwane City is the economic, political, and administrative capital of Limpopo Province and the CBD is the economic core of Polokwane City. It links with Gauteng via the N1 and has an international airport north of the CBD. The Limpopo Provincial Legislature, a range of provincial and national government departments and the Municipal offices of the Capricorn District and Polokwane Local Municipality are also located there.

The Municipality is +/- 539 982.5 Ha in extent and accounts for 3% of the total surface area of Limpopo ($\pm 124\,000\text{ km}^2$), yet over 10% of the Limpopo population resides within its boundaries.

Spatial Pattern

The Municipality's spatial pattern reflects that of the historic apartheid city model characterised by segregated settlement. At the centre is the Polokwane economic hub, comprising the CBD, industrial areas, and a range of social services with well-established residential suburbs mainly east of the CBD. Situated on the outskirts in several clusters are less formal

suburban settlements experiencing an enormous influx from rural-urban migration.

There are a few prominent business nodes in the Polokwane area apart from the CBD, although none of them compare in terms of size or variety of use and services provided. Other key nodes and activities include:

- the Airport Gateway initiative at the Polokwane International Airport – located north of the CBD along the N1 towards Makhado,
- the N1-located Mall of the North, north-east of the CBD, and Savannah Mall in the residential areas to the east,
- Meropa Casino in the emerging node at the N1's Southern Gateway - south-west of the CBD,
- various developments in Seshego including the Circle Mall, Seshego hospital, Capricorn TVET College, and industrial areas north-west of Seshego.

Adjoining Uses

The areas immediately surrounding the CBD are characterised by the following uses:

- North; the CBD borders:
 - the PRASA, national railway line and Polokwane Train Station – both are currently inaccessible and passenger rail is non-operational.,
 - Ladine industrial areas and the railway yards which separate Annadale suburb from the CBD,
 - Itsoseng Entrepreneurial Centre and the Polokwane Transport Hub north-west of the CBD and railway line.

- East:

- The CBD borders the well-established residential suburbs of Capricorn, Bendor, Mōregloed, Welgelegen and Fauna and Flora Park.
- This transitory zone between the CBD and its most served suburbs contains many schools, private medical facilities, and a collection of higher density flats of three-to-four storeys.

- West:

- The Sterkstroom/Sandriver tributary and green-belt, cemeteries, and the north-western taxi holdings define the CBDs western edge.
- Predominantly, high order/high speed routes cross the river – with limited pedestrian-priority crossings.

- South, the CDB borders:

- A large sports complex, including the Polokwane Country Club, Golf Course, Cricket, Ring-ball, and Bowling clubs. There are no mixed or residential uses directly bordering east, west or south of the Precinct. Its location and vast, unprogrammed open spaces between facilities makes accessibility difficult without vehicular transportation.
- The R101 southern gateway is characterised by recently developed motor car showrooms, dealerships, and big-box stores (Builder's Warehouse) and industrial warehouses in Nirvana,
- Steyn Park at the Sterkstroom/Sandriver tributary crossing,

Industrial areas are located primarily to the north and west of the CBD, and include the areas Superbia, Ladine, Industria, Laboria, and Magna Via.

Transport Connections

Road

Polokwane lies roughly halfway between Gauteng (300km) and the Zimbabwean border (200km) on the N1 highway.

Key regional roads connecting the CBD are:

- the N1 and the N1 bypass, connecting Gauteng in the south to Makhado in the north and beyond. The N1 is part of the SADC regional North-South Corridor linking the Zambian copperbelt, Zimbabwe, and South Africa to the ports of Durban and Richards Bay,
- the R81 to the north-east, connecting to Giyani and Malamulele,
- the R71 to the east, connecting to Tzaneen, Phalaborwa, Bushbuckridge, and the Kruger National Park,
- the R37 provincial route to the south connecting via Chuniespoort and Lebowakgomo to various Mpumalanga destinations,
- the R521 to the north, connecting to Alldays,
- the R567 via Seshego connecting to the N11.

Rail

The national rail link between South Africa and Zimbabwe (and Limpopo and Gauteng Province) runs through the north-western portion of the CBD. It has very limited functional interaction with the CBD and the PRASA, Polokwane Railway Station is closed for public use.

Agricultural produce of the area, including tomatoes, citrus fruit, sugar cane, peanuts, tea, bananas, and avocados, is transported by freight rail.

Air

Polokwane is served by two airports. A public airport - Polokwane International Airport - just north of the city, and the smaller Pietersburg Civil Aerodrome south-east of the city.

Open Space and Environment

Major open spaces within the city include:

- the Golf Club, Sports precinct, and Polokwane Game Reserve to the south,
- the Sterkstroom/Sandriver tributary watercourse and greenbelt west of the CBD,
- Civic Park or Jack Botes Park (CBD south),
- Mark Street Park or SABC Park (CBD north).

Numerous nature reserves and wilderness areas are regionally accessed from Polokwane, including Bewaarkloof, Woodbush, Wolkberg, Magoebaskloof, and Lekgalametse, amongst others. The R71 is a popular route to Phalaborwa and the Kruger National Park.

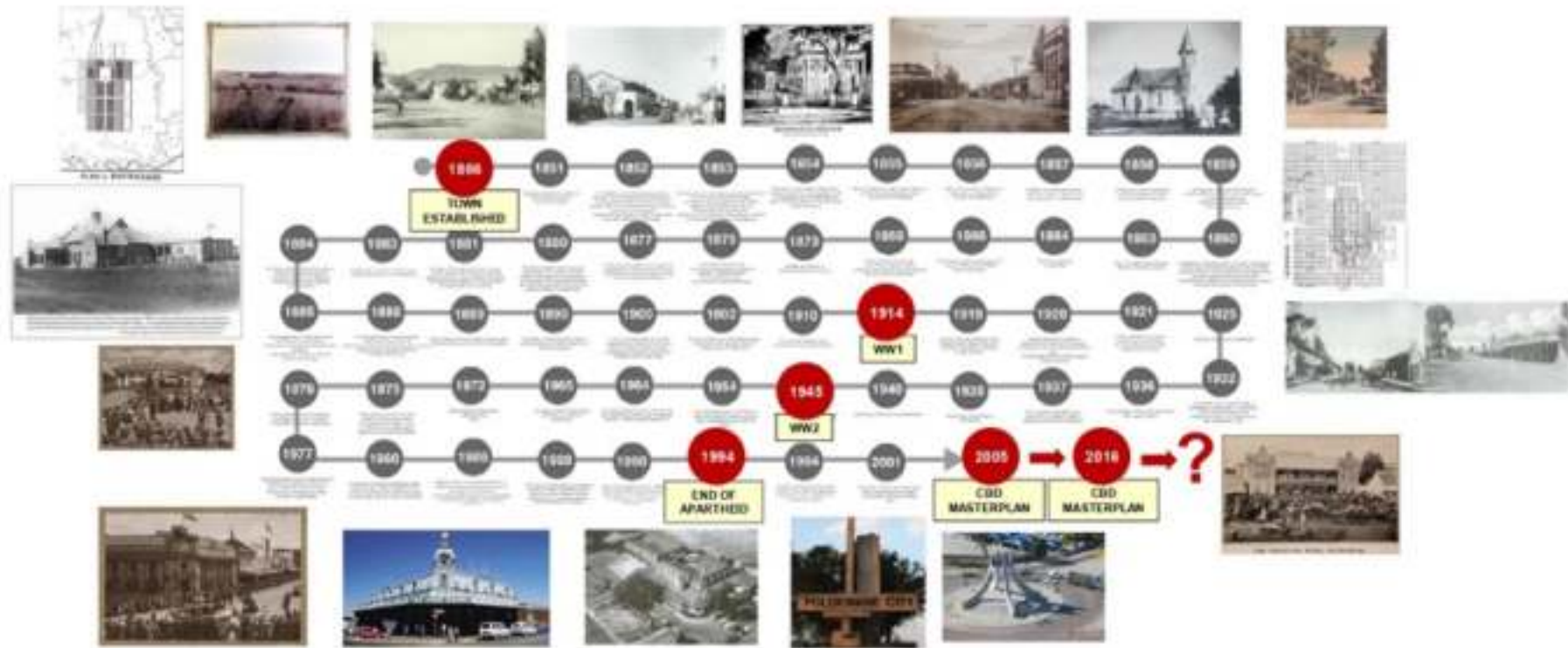


Diagram 3: Historical Development of the CBD



Diagram 4: Polokwane Districts and Municipalities in their Provincial Context



Diagram 5: The CBD In Relation to the City

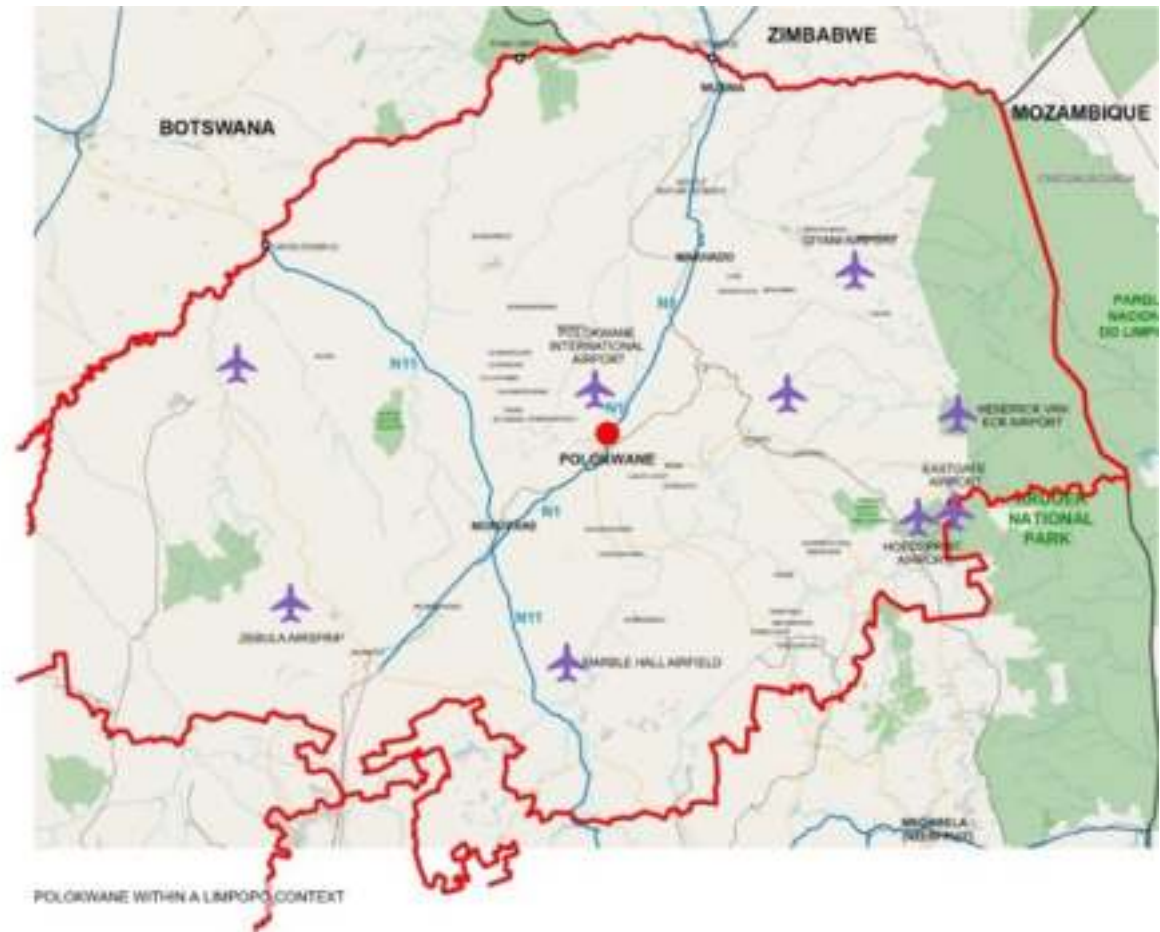


Diagram 6: Transport Connections

7.3 INSTITUTIONAL CONTEXT

Refer to:

Diagram 7: Capricorn District Municipal Boundaries

Diagram 8: Organisational Structure of the Municipality

Diagram 9: Ward Boundaries of the CBD

Source: LM CBD Plan and Urban Renewal Strategy Final Report (April 2016).

The organisational structure of a Municipality is governed under the Municipal Structures Act, 1998 and is a policy decision made by Councillors. The Executive Mayor, and Senior Managers who report directly to the Municipal Manager, appointed by the Municipal Council. In its oversight role, the Municipal Council takes responsibility for the financial affairs of the municipality. The residents and ratepayers of a municipality elect the Municipal Council to decide on their behalf, on the overall direction and policies for the municipality.

Polokwane Local Municipality is in Limpopo's Capricorn District and shares borders with three of its other local municipalities, as well as municipalities in the Mopani and Waterberg Districts. It is the largest metropolitan complex in the north, and a major economic centre with 45 wards (2019/2020).

The CBD falls within:

- Ward 39, north of Grobler St / R71,
- Ward 22, south of Grobler St,
- Ward 19 abuts the CBD's western boundary and includes the Cemetery which effectively forms part of the CBD. Ward 23 abuts the CBD's Northern Boundary and includes The Polokwane Train Station, Railway Yards, and Industrial Precinct, as well as the airport located further north.

The key performance areas of the Polokwane Municipality identified in the IDP 2021-2026, are:

Meeting Basic Needs:

The provision of water, sanitation and electricity are the main priorities for meeting basic needs.

Local Economic Development:

Emphasis is on attracting and retaining investment, SMME support, skills development and the implementation of the affirmative procurement framework and the implementation of labour-intensive programmes.

Community Empowerment:

The core objective is to mobilise and empower local communities embrace and support the process of social transformation.

Organisational Transformation:

Institutional transformation necessary to achieve the strategic objectives of developmental governance. These include outcome-based performance management system, implementation of Batho-Pele principles, employment equity and skills development.



Diagram 7: Capricorn District Municipal Boundaries

7.4 SOCIO-ECONOMIC CONTEXT

Refer to:
 Diagram 10: Polokwane Municipality Demographics (STATS SA)
 Diagram 11: Polokwane Municipality Demographics (STATS-SA)

Source : <https://www.statssa.gov.za/>

The key demographic statistics for Polokwane Municipality are outlined in the following table and diagram.

The challenges faced by the Municipality are typical of many towns and cities in South Africa, and include:

- a high percentage of youth,
- low levels of education,
- predominantly rural-based population,
- low levels of employment,
- low levels of household income.

While the needs and demands of the population are high, the resources to implement supporting structures and operate them are low. Therefore, it is important that Municipal investment in the CBD pursues projects that are catalytic in nature and focussed on both economic stimulation and social upliftment.

7.5 POPULATION PROJECTIONS

The average annual population growth rate for Polokwane has decreased from 3.65% between 1966 to 2001, to 2.15% between 2001 and 2011.

The decrease in population growth is associated with low fertility rates and out-migration in search of better employment opportunities in other provinces. Polokwane’s growth rate is above average for Limpopo Province and the highest of all its local municipalities.

A 2.15% growth applied to STATSA census data indicates a population-growth of.

- 684,967 in 2015,
- 761,982 in 2020,
- 1,475,190 in 2050.

It is estimated to represent roughly 20% Limpopo's total population in 2050 and suggests that the municipal population will double over the next 30 years. These projections provide estimates and perspective on Polokwane's future employment needs, and pressure for goods and service delivery.

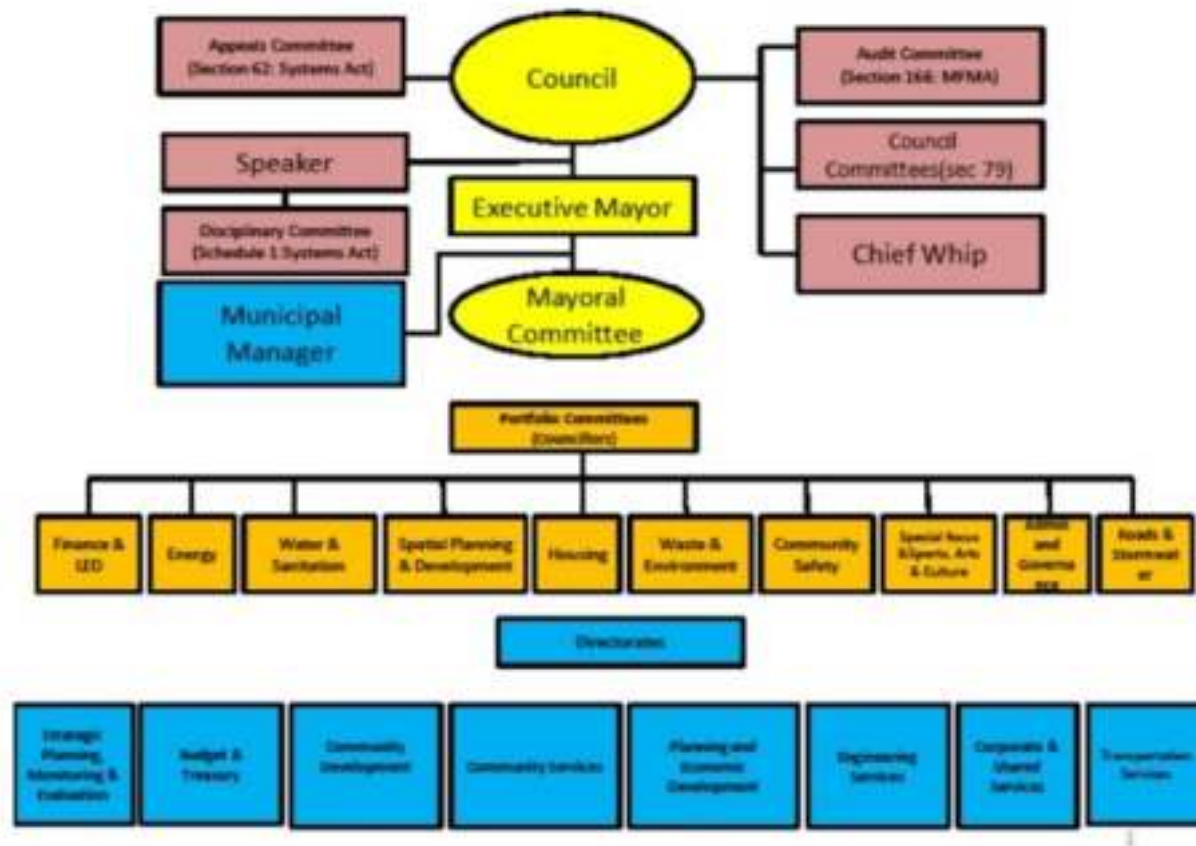


Diagram 8: Organisational Structure of the Municipality

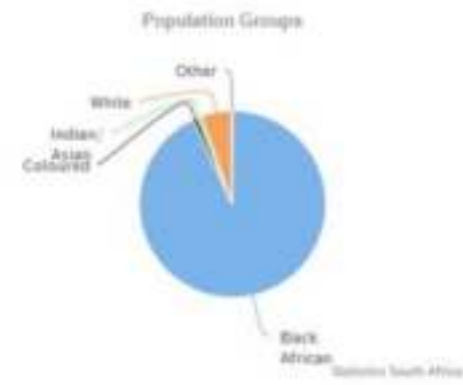


Diagram 9: Ward Boundaries of the CBD

1	Total population	628,999
2	Young (0-14)	30,1%
3	Working Age (15-64)	64,8%
4	Elderly (65+)	5,1%
5	Dependency ratio	54,3
6	Sex ratio	92,5
7	Growth rate	2,13% (2001-2011)
8	Population density	167 persons/km ²
9	Unemployment rate	32,4%
10	Youth unemployment rate	42%
11	No schooling aged 20+	6,7%
12	Higher education aged 20+	17,3%
13	Matric aged 20+	29,5%
14	Number of households	178,001
15	Number of agricultural households	41,867
16	Average household size	3,4
17	Female headed households	44,8%
18	Formal dwellings	89,4%
19	Housing owned/paying off	56,4%
20	Flush toilet connected to sewerage	41,1%
21	Weekly refuse removal	44,4%
22	Piped water inside dwelling	33,7%
23	Electricity for lighting	83%

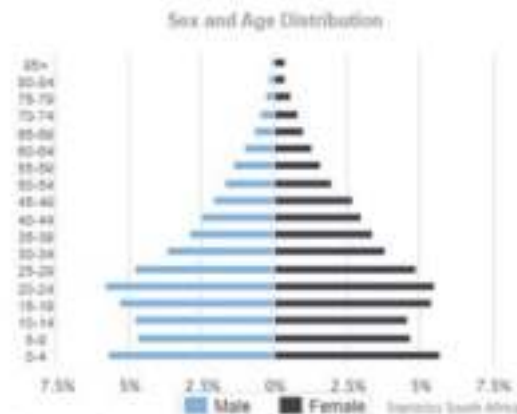
Table 1: Key Demographic Statistics

Source : <https://www.statssa.gov.za> (Census 2011)



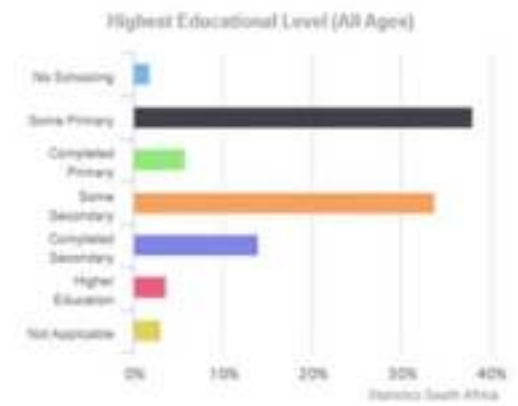
Group	Percentage
Black African	92.9%
Coloured	0.9%
Indian/Asian	0.7%
White	3.2%
Other	0.2%

POPULATION GROUP



Age	Males	Females
0-4	0.7%	0.7%
5-9	0.7%	0.7%
10-14	0.9%	0.9%
15-19	1.0%	1.0%
20-24	1.0%	1.0%
25-29	1.3%	1.3%
30-34	1.7%	1.7%
35-39	2.0%	2.0%
40-44	2.0%	2.0%
45-49	2.0%	2.0%
50-54	2.0%	2.0%
55-59	2.0%	2.0%
60-64	2.0%	2.0%
65-69	2.0%	2.0%
70-74	2.0%	2.0%
75-79	2.0%	2.0%
80-84	2.0%	2.0%
85-89	2.0%	2.0%
90+	2.0%	2.0%

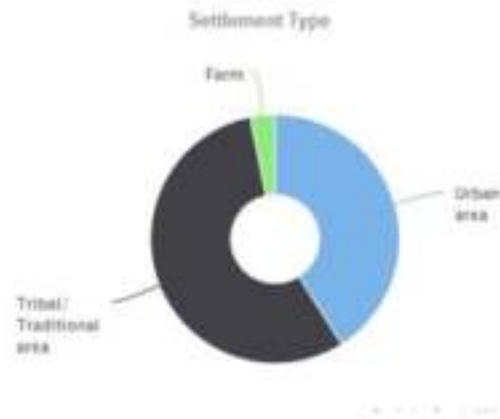
SEX AND AGE DISTRIBUTION



Group	Percentage
No Schooling	1.9%
Some Primary	38%
Completed Primary	5.8%
Some Secondary	33.7%
Completed Secondary	14%
Higher Education	3.6%
Not Applicable	0.1%

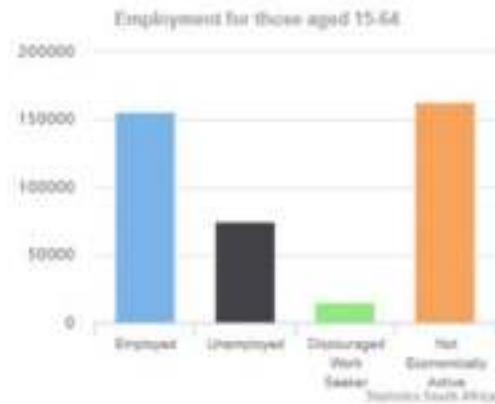
HIGHEST EDUCATION LEVEL

Diagram 10: Polokwane Municipality Demographics (STATS SA)



Area	Percentage
Urban	41%
Tribal/Traditional	55.8%
Farm	3.2%

SETTLEMENT TYPE



Employment Status	Number
Employed	155691
Unemployed	74704
Discouraged Work Seeker	14798
Not Economically Active	162442

EMPLOYMENT AGES 15-64



Income	Percentage
No income	15.8%
R1 - R4,200	4.3%
R4,801 - R6,900	8.5%
R8,801 - R19,800	18.3%
R19,801 - R38,200	19.7%
R38,201 - R76,400	11.7%
R76,401 - R152,800	8.1%
R152,801 - R307,600	7.2%
R307,601 - R614,400	4.6%
R614,001 - R1,228,800	1.6%
R1,228,801 - R2,457,600	0.4%
R2,457,601+	0.3%

AVERAGE HOUSEHOLD INCOME

Diagram 11: Polokwane Municipality Demographics (STATS-SA)

7.6 KEY FINDINGS

Polokwane Local Municipality is a major contributor to the Capricorn district municipal economy. It is the most affluent local municipality in the Capricorn district. However, there are still considerable inequalities in the distribution of income and quality of public spaces and facilities between various population subgroups. Lack of employment is a problem. Key findings suggest that much of the overall inequality is exacerbated by spatial segregation of class and racial groups.

Regionally significant observations:

- The City of Polokwane – and by default its CBD – plays a crucial role in the functioning of its broader community and hinterland.
- It is the economic, political, and administrative capital of Limpopo Province.
- The city is nationally and internationally connected by road, air, and freight-rail.
- Numerous nature reserves and wilderness areas are accessed from Polokwane – it can be regarded as a gateway to many of the tourism offerings in Limpopo, Mpumalanga, the Kruger National Park, and Zimbabwe.
- Polokwane Local Municipality shares borders with three other local municipalities within Capricorn District as well as local municipalities in Mopani and Waterberg Districts.
- It is South Africa's largest urbanised area north of Gauteng and a major economic centre with 45 wards.

Locally significant observations:

- The CBD is the economic core of Polokwane City, hosting the largest and most diverse concentration of economic activity in the province. It is well-integrated with adjoining suburbs to the east. Suburbs to the north, northwest and west are mostly connected through high order roads.

- Apart from the CBD, few prominent activity nodes exist, and none compare in size and variety of functions and access to goods and services.
- Civic, social, sport and recreation amenities, healthcare, industry, and the well-established eastern residential suburbs integrates with the urban core.
- Less formal/established settlement clusters, located on the urban periphery, are experiencing enormous influx-pressure from rural-urban migration.
- The upgrade and regeneration of the CBD will play an important role in addressing key objectives, which include meeting basic needs and local economic development. However, the socio-economic condition of the wider region remains a challenge.
- While the needs and demands of the population are high, the resources to implement and operate and maintain are low.
- The CBD investments selected by the Municipality needs to be catalytic in nature and focussed on both economic stimulation and social upliftment.

8 PLANS, POLICIES AND PROJECTS OVERVIEW

Key guiding documents of the Municipality include:

- Polokwane Spatial Development Framework 2010,
- CBD Development Plan and Urban Renewal Strategy, 2005.
- CBD Development Plan and Urban Renewal Strategy, 2016.
- Draft IDP / Vision 2030=Smart City, 2021-2026.
- IDP 2022/23 Draft Final.
- Draft Budget 2020/21 – 2023/24.
- Service Delivery and Budget Implementation Plan (SDBIP) 2021/22.

This chapter provides an overview of the plans and policies that have guided the municipality, government, and the private sectors' decisions regarding the CBD's development over the last few decades. It identifies plans that are still applicable and one's that require review or updating to address the CBD's current challenges. It also highlights elements that are working well to unlock new opportunities for economic and social development over the upcoming years.

8.1 POLOKWANE SPATIAL DEVELOPMENT FRAMEWORK 2010

The Polokwane Spatial Development Framework (SDF) is a statutory component of the Polokwane Integrated Development Plan (IDP). The SDF makes the following key points regarding the Polokwane CBD:

- It is the primary node in the municipal area of the City of Polokwane and its functional status as CBD must be sustained by providing specialised goods and services,
 - Two secondary 'multi-use' nodes, Savannah Mall, and Mall of the North, serve a regional function,
 - Secondary community and neighbourhood nodes should develop across the city.

- Development of business centres and other non-residential land uses should be considered if it does not jeopardise the CBD or other regional, community, or neighbourhood-scale developments/nodes,
- Existing nodes should be strengthened even as new ones develop.
- Potential Gateway Nodes can be established at the five main entrances to Polokwane City,
- The SDF also identified several potential specialised nodes:
 - A Medical Node east of the CBD, with many private health care facilities clustered around Grobler and Thabo Mbeki Street,
 - An Administrative Node in the south-eastern section of the CBD, accommodating the offices of Polokwane Municipality, Capricorn District Municipality, and the Limpopo Provincial Government,
 - A Regional Sports Node south of the CBD, including the Peter Mokaba Stadium,
 - The Intermodal Transport Hub located north-west of the CBD with long distance bus services in proximity to many taxi-ranks in the northern part of the-CBD, as well as improved linkage to the Polokwane International Airport.
- Five mixed-use corridors were proposed:
 - N1 Southern Gateway Corridor from Meropa Casino towards the CBD: mixed land use including a Convention Centre,
 - Nelson Mandela Drive Corridor between the CBD and Seshego: Urban infill with a variety of housing options and limited-service industries,
 - North-east of Ext12 (Magna Via) and south of the N1-Eastern By-pass: Service industry, limited commercial and diverse residential development,
 - Church Street Extension-South: housing, commercial, tourism related, service industrial land uses related to the smelter, and land uses associated with the mining sector,
 - Eastern Corridor along Thabo Mbeki and Grobler Street densification: housing and limited commercial use.

This plan proposed enhanced linkages and corridor development between the CBD and various secondary, speciality nodes. The primary, CBD node and secondary nodes need to operate cooperatively as part of the wider urban area, and not in competition with each other.

8.2 2005 AND 2016 CBD DEVELOPMENT PLAN AND URBAN RENEWAL STRATEGY OVERVIEW

Introduction

The Polokwane Local Municipality commissioned the Polokwane Central Business District Plan in 2000. This plan comprised a comprehensive situational analysis on the land use and movement characteristics of the CBD, as well as detailed proposals pertaining to the economic growth and spatial development of the area. The document was adopted by Council and served as the CBDs development guideline for the period 2000 to 2005 when the Polokwane CBD Development Plan was reviewed and updated.

The Polokwane CBD Development Plan (2005) guided and informed development in and around the Polokwane CBD over the next ten years. However, as the physical, social, economic, and institutional environment in and around the Polokwane CBD continuously changes, the Municipality commissioned the review of the Polokwane CBD Development Plan which was completed in 2016.

Objectives

The main objective of the 2016 study was to update the CBD Development Plan for Polokwane and to formulate a comprehensive Urban Renewal Strategy for the area.

The purpose of the Urban Renewal Strategy was to:

- Upgrade the living conditions of people residing within the Polokwane area,
- to create an integrated and functional urban environment,
- to promote the upgrading of old buildings,
- to rehabilitate the dysfunctional components of the CBD.

8.3 2005 POLOKWANE CBD DEVELOPMENT PLAN OVERVIEW

Stakeholders in 1999 felt that although the CBD had good infrastructure it was subject to various negative factors such as crime and grime, lack of parking and public transport, inadequate loading and refuse facilities, and the informal trading sector which, if not attended to, would lead to further degradation and decentralisation.

Key suggestions to provide a positive business climate during the 1999/2005 period were to:

- provide a Supreme Court in Polokwane,
- reduce rates and taxes,
- demarcate trading areas for the informal sector,
- privatise and outsource general CBD maintenance,
- develop high-density residential areas,
- increase shopping hours,
- increase visible policing,
- create a pedestrian mall and a pedestrian friendly environment,
- run a continuous marketing strategy to entice investment.

Development opportunities needed to be unlocked through various incentive schemes to ensure the long-term sustainability of the CBD.

Local municipalities can measure the resources invested into the key suggestions, and if so, at what cost vs. level of environmental and social upliftment achieved.

8.4 2016 POLOKWANE CBD PLAN AND URBAN RENEWAL STRATEGY OVERVIEW

2016 CBD Plan Constraints and Opportunities

The challenges and/or concerns identified in the CBD in 2016 were:

- limited space for (horizontal) expansion – vertical expansion isn't addressed.
- decentralization – and the impact of big business activity and investment moving away from the CBD - a part of the of buying power market left the CBD for densifying-, but also expanding suburbs.
- urban decay linking to lack of investment.
- lack of parking, traffic congestion,
- overcrowding,
- informal land use activity,
- bulk infrastructure decline,
- poor public and private space maintenance,
- limited residential provision and student accommodation,
- lack of pedestrian and vehicular connectivity across the railway line to the north-western part of the CBD – isolating the Itso seng Entrepreneurial Centre and hampering safe passage between the bustling area around the Indian Centre and to the long-distance bus terminals.
- public transport (bus and taxi) congestion,
- public transport facilities mainly concentrated in the northern parts of the CBD,
- parking shortages in the retail core area,
- informal traders obstructing pedestrian movement area and business operations in the retail core.

It formed an argument on why the CBD should and could be attractive for investors. These include:

- the CBD is an important economic and institutional hub in the Limpopo Province – it serves 5,4 million people and represents

the most diverse and largest concentration of economic activity and financial-exchange opportunities in the province,

- An Intermodal Transport Hub making it accessible to a large hinterland's citizens.
- A Regional Sports Node offering variety of sporting facilities and activities,
- An Administrative/Government Node which is home to government and local municipality offices.
- A Medical Node with a large state hospital and a clustering of private medical facilities along the eastern CBD-edge and a cluster of
- Government Services towards the north-east of the CBD,
- parts of the CBD are proclaimed as an Urban Development Zone (Tax Incentive and Social Housing),
- CBD retail space amounts to 461,562m². There is 164,119m² outside the CBD - which has increased by 350% since 2005,
- Most of the CBD has a retail and office ground floor use making it accessible.
- the CBD is legible with an efficient layout structure and clear gateways from all sides,
- there is significant potential for intensification of land use to the south, east and north-west,
- two main entrances to the CBD are defined motor showrooms.
- There is approximately 80,684m² of vacant land in the CDB,
- A Rapid Transit Network could encourage new development in the CBD.

2016 CBD Plan Development Principles

The CBD Development Plan and Urban Renewal Strategy proposals were guided by the following principles:

CBD DEVELOPMENT PLAN	
Principle 1	Protect and enhance the status of the Polokwane CBD as the Primary Activity Node to the city and the surrounding region, supported by a range of Secondary Activity Nodes.
Principle 2:	Enhance the spatial sustainability of the Polokwane CBD by developing it as part of a much larger functional activity area comprising several specialized activity precincts surrounding
Principle 3	Expand/amend the boundary of the Polokwane CBD with due consideration to the location and extent of surrounding functional areas as defined in existing policy documents.
Principle 4	Grant optimum development rights to CBD functional areas to improve spatial efficiency and economic development potential.
Principle 5	Incrementally upgrade engineering services to facilitate densification and intensification of land use in the CBD
Principle 6	Cater for all public and private transport and movement needs in the CBD area.
Principle 7:	Earmark the north-western part of the CBD as a focus area for governmental intervention
URBAN RENEWAL STRATEGY	
Principle 1:	Put in place institutional arrangements to ensure proper management and maintenance in the Polokwane CBD.
Principle 2	Enhance safety and security and by-law enhancement.
Principle 3	Create a functional public space system which incorporates aspects of recreation, arts, culture and heritage into the CBD.
Principle 4:	Promote Local Economic Development with specific focus on the informal sector and national and local incentive schemes.
Principle 5	Actively pursue programmes towards social development/ upliftment within the CBD.

Table 2: 2016 CBD Development Plan Principles

8.5 DRAFT INTEGRATED DEVELOPMENT PLAN 2021-2026

Source: Draft IDP / Vision 2030=Smart City, 2021-2026).

The Municipal System Act, 32 of 2000, Section 28(1), stipulates that all municipalities review their Integrated Development Plan annually. The IDP/Budget/PMS process details the programmes, stakeholders, timelines and budgets for approval and implementation by Council. The 2021-2026 Draft Integrated Development Framework (IDP) reviews the City of Polokwane's vision, mission, and values in line with the themes of becoming a Smart City. The Re a ga Polokwane programme encourages all citizens to help make Polokwane a smart city by 2030. Its vision for sustainable development relies on implementing innovative management of the economy, environment, governance, living conditions, mobility, and social development.

Vision 2030 Smart City key themes aim to:

- Embrace adaptable, robust technology and operating systems capable of serving for longer,
- Use land carefully and efficiently.
- Protect the city's unique geological aspects.
- Embrace environmentally friendly management of natural resources,
- Embrace technology and operating systems that can connect to all citizens of the city and its hinterland, regardless of socio-economic class divides.
- Embrace technology and operating systems that improve access to governance through connectivity, information sharing and process updates,
- Provide essential services in places of greatest need.
- Provide additional systems that make the city more attractive for citizens and investment,
- Use accessible technology to enhance mobility and access for people using public transport, including taxis.

- Promote the use of- and inform citizens about the systems designed to ease urban navigation and obtain feedback to improve an inclusive and participatory city.

The IDP identifies active challenges in the CBD. There are service-capacity concerns with a high demand for a greater variety of housing typologies. Major projects being embarked by the City of Polokwane:

- Replacing 177km of Asbestos Cement pipes in the municipality's jurisdiction,
- Replacing conventional water and electricity meters with smart meters in several areas in the city,
- Introduction of a rapid bus service,
- Student accommodation partnerships to support the growing number of students in the city,
- Public-Private Partnerships for mixed used urban densification development,
- Waste management project,
- Water Management projects.

The following sections identify projects and challenges specific to the CBD that require consideration in planning:

Primary And Secondary Development Nodes

The CBD is the central, economic heart of the city, concentrating retail and general business. Secondary nodes perform an important role serving Polokwane's rapidly sprawling residential areas. Activity corridors leading into the city provides complementary economic opportunities for functions with specific spatial and operational requirements. Activity corridors generate retail opportunities that attach to passing buying-power. Large retail centres provide an environment that better caters for vehicles while providing a higher sense of security and safety. Small, activity corridor retailers cannot compete with the infrastructure and convenience provided in privatised places design shopping.

Inner-City Densification

The plan's aim is to densify the inner-city. Municipal Towers is a mixed-use precinct combining civic services with social facilities, including a hotel, cinema, theatre, and a restaurant. Several land parcels in the city have been identified for mixed-use, high-density re-development. Land acquisition, development-control relaxations and/or incentives could enable high-density development.

The CDB Urban Renewal Strategy (2016) identifies urban decay and illegal accommodation as a deterrent for investment. The north-western portion of the CBD has transformed regardless of rezoning laws and/or health and safety threats associated with illegal water and electricity connections and proper sanitation. Living conditions and levels of overcrowding are of concern.

The plan further encourages partnerships between private developers and municipality to provide affordable student accommodation within the CBD.

Transport

The Rapid Public Transit System (IRPTS) was proposed to incorporate mixed modes of transport such as taxi, bus and non-motorised modes of transport.

Roughly 17 taxi ranks provide local commuter services throughout Polokwane:

- Pick 'n Pay Taxi Rank a (Church Str),
- Pick 'n Pay Rank a (Pres Paul Kruger / Devenish Str),
- Taxi Holding Area (Along Nelson Mandela Drive),
- Taxi Holding Area (Devenish / Buite Str),
- Taxi Holding Area (Rissik / Buite Str),
- Spar Taxi Rank (Rissik / Bok Str),
- Checkers Taxi Rank (Biccard Str),
- Oriental Plaza Taxi Rank (Excelsior Str),

- Dahl Taxi Holding (RSA Café: Dahl between Grobler and Thabo Mbeki Str),
- Westernburg Taxi Rank (Ben Harris Str),
- No. 87 Paul Kruger Street Long Distance Taxi Rank (Privately owned),
- Mall of the North Taxi Rank(R81),
- Sasol Taxi Rank: Paledi Mall (R71),
- Boyne Taxi Rank (R71),
- Bus Rank (Silicon Str),
- Mankweng Hospital Taxi Rank,
- Turfloop Plaza Taxi Rank (University of North Str),
- Mankweng Taxi Rank 2 (opposite the hospital).

One rank is dedicated to long distance taxi routes. The remaining ranks serve local and long-distance taxi services. One of four taxi holding areas in Polokwane is formalised. There is one informal rank specifically dedicated for long-distance taxis and the rest provide a mix of local and long-distance services.

Hospital/Silicon Street Rank provides subsidised commuter buses and the terminus in Thabo Mbeki Street provides long distance buses.

CBD Projects Identified in the DRAFT IDP 2021-2026

Planning Projects:

- *CDB Smart City Vision 2030*: Attract private infrastructure investment into the CBD by making an attractive place for business.

Land Use and Precinct Development Projects:

- Municipal Towers Mixed Use Precinct,
- *Land Acquisition* to provide Student Accommodation: and curb illegal accommodation and its social impact, through collaboration with institutions.

Infrastructure Upgrades:

- *Asbestos Cement Pipe Replacement Phase 01* is complete and excessive water losses have been kerbed. Council and the Department of Water and Sanitation are currently collaborating on phase 2 planning.
- *Supervisory Control and Data Acquisition (SCADA)* A water management system is planned for installation.

Further Proposed Projects:

- Library Master Plan:
 - Improved access to information in the CBD and satellite locations.
 - Develop a CBD City Library as part of a larger Cultural Precinct that addresses inner-city safety and security concerns in the CBD.

8.6 KEY FINDINGS

The 2005 and 2016 CBD Development Plans highlight the same challenges. These urban issues are not resolved and are becoming further exacerbated.

Issues recognised since at least 1999, contributing toward ongoing, overall CBD decline:

- urban decay,
- crime and grime,
- collapsing infrastructure,
- poor maintenance and management,
- poor quality public environment,
- illegal parking,
- unmanaged taxis,
- unaccommodated street traders,
- businesses relocations to more attractive to sub-nodes,
- negative perceptions for future investment.

Despite this, the CBD is still regarded as having some distinct advantages worthwhile protecting and enhancing:

- primary urban centre in Limpopo offering the widest range of economic opportunities and social services,
- good, regional transport connections,
- tourist and commuter springboard to surrounding areas,
- wide range of housing and business offerings.

The scale and pace of investment in Polokwane's urban transformation is not sufficient to fundamentally resolve the negative issues facing the CBD. The SDF recognises the CBD as the core of a network of nodes and corridors. However, the network and approach of functional integration must be re-examined for more beneficial enhancement.

The Draft Integrated Development Plan 2021-2016 identifies key themes for Polokwane's transformation toward Vision 2030 Smart City. It highlights key urbanization challenges facing the CBD and highlights careful consideration being given to:

- the specific role and considerations for the primary (CBD), secondary (corridor developments and specific use, peripheral) nodes,
- inner city densification and housing alternatives that address illegal residential land uses,
- integration of various modes of transportation.

The next section investigates the CBDs current condition to determine challenges and opportunities for improving its role and functionality to better serve residents, business, and visitors over the long term.

9 APPRAISAL OF THE CBD STATUS QUO

Polokwane's spatial pattern stems from apartheid's structure of separation. Less-formal areas experiencing migratory, influx-pressure, are far removed from its more affluent, well serviced, and established suburbs. The railway line, industrial zones, tributaries and more, contribute to physical and socio-economic separation.

The municipality consists of Forty-Five (45) wards within 7 Clusters of settlement areas:

- City, which includes the CBD,
- Seshego,
- Mankweng,
- Sebayeng/Dikgale,
- Molepo/ Chuene/ Maja,
- Moletjie,
- Aganang.

This section of the report examines the status quo of the CDB study area which comprises of three council wards.

9.1 EXTENT AND PROFILE OF THE CBD

Source:

Polokwane CBD Plan and Urban Renewal Strategy Final Report (April 2016).

Draft IDP / Vision 2030=Smart City, 2021-2026.

Polokwane CBD comprises a rectangular grid covering roughly 350 hectares. In comparison, other urban centres cover the following land areas:

- Johannesburg CBD: 369 ha,
- Tshwane CBD: 435 ha,
- Kempton Park: 182 ha,
- Mbombela: 80 ha,
- Emalahleni: 60 ha.

There are 98 CBD city blocks, and the urban grid is on average roughly 75m x 230m (16,950m²). Between Hans van Rensburg and Voortrekker Streets the east-west grid double to roughly 150m x 230m (34,500m²).

The CBD extends:

- about 2.5 km from north to south,
- 1.6 km from east to west along Excelsior Street to the north,
- 1 km along Marshall Street towards the south.

The CBDs peripheral blocks are finer in their built-form grain, than the central city blocks where coverage and density increases. The Urban Development Zone, promulgated in 2005, covers roughly 145.9 hectares of the CBD.

9.2 CBD LAND USE

Refer to:

Diagram 12: Land Use

Diagram 13: Land Use Composition - Retail, Mixed Use and Commercial

Diagram 14: Land Use Composition – Retail

Diagram 15: Land Use Composition - Street Trade

Diagram 16: Land Use Composition – Industrial

Diagram 17: Land Use Composition – Residential

Diagram 18: Land Use Composition - Social Facilities

The land use structure of the Polokwane CBD has not changed significantly since the 2000 CBD Plan. The following land use patterns are notable in this regard:

- Most CBD blocks comprise of a mixed of uses,
- **Retail** is the dominant land use in the central and north-western parts of the CBD. Many blocks are exclusively retail, e.g., blocks 27, 37, 38, 51, 63 and 71,
- **Offices** are mainly concentrated in the central core area. Low intensity offices (house conversions) extend southwards towards Suid Street in the area incorporated into the CBD since 2005.

The row of blocks between Hans van Rensburg and Biccard Street (blocks 1 to 8 and 87 consist of a high percentage of office use,

- **Government/Municipal** uses are clustered in the central core area and towards the south-east,
- **Residential Dwellings** mainly occur along the eastern boundary along Voortrekker Street while dwellings combined with **illegal and informal activities** occur in the north-western quadrant between Buite and Dahl Streets,
- **Motor Trade** is clustered at the two main entrances into the CBD – around Landdros Maré Street and Mark Street to the north and between Grobler and Thabo Mbeki Street towards the west.

- ±739 779m² of office (including home offices) and municipal government buildings (45.6% of total floor space) in the CBD, compared to 578 715m² in 2005,
- ±108 481m² of flats/cluster housing (6.7% of total floor space) in the CBD,
- ±99 273m² of motor industry uses (6% of total floor space), in the CBD,
- ±84 658m² of parking and taxi rank use (5.2% of total floor space) in the CBD.

Primary and Secondary Nodes are examined in more detail, in the following section.

9.2.1 LAND USE COMPOSITION

Source: Polokwane Spatial Development Framework 2010,

The Polokwane Spatial Development Framework – a statutory component of the Polokwane Integrated Development Plan (IDP) – makes the following key points regarding the CBD:

- Polokwane CBD is the Primary Node of the municipal area of Polokwane. It emphasises the sustained functional status of the city's core in providing centralised, specialised goods and services,
- Development of Secondary Nodes (business and other non-residential uses) should be considered as long as they do not jeopardise the CBD's functional importance, or any other existing development,
- Proposed, enhanced linkages and corridor development proposals connecting the CBD to Secondary Nodes must support cooperative integration of nodes, and not compete with them or each other.

A recent survey of CBD land use identifies:

- ±461 562m² of retail floor space (28.4% of total floor space) in the CBD, compared to 388 972m² (32%) in 2005,

CBD Core

Erven in the CDB core are reasonably well developed in terms of their development potential (rights).

Building conditions vary. Most structures are in a good condition, but there are severe signs of decay in the northern and north-western parts of the CBD with a high concentration of dilapidated structures. Well-preserved, high street heritage buildings and new office and business complexes – constructed in recent years – complete the mix:

- Retail, service industries and financial institutions are situated between Biccard and Church streets – from Excelsior Street in the north to Thabo Thabo Mbeki Street in the south,
- Retail activity intensifies in the CBD north-west towards the Indian Plaza (block 70) and Game Centre (block 71),
- Banks and financial primarily cluster around Hans van Rensburg Street, between Jorissen and Thabo Mbeki Streets.

Southern Sector

Parts of the CBD – south of Thabo Mbeki Street – have seen extensive redevelopment since 2005. Many office buildings have been established in this area, including several provincial government offices.

The southwestern part of this sector mainly comprises of dwelling house offices, many of which have been converted into formal offices over the past decade.

The area is well established with good aesthetic qualities, and accommodates a wide range of professional services e.g., consulting engineers, surveyors, attorneys, quantity surveyors etc.

North-Eastern Sector

The north-eastern section of the CBD (i.e., north of Grobler Street between Biccard and Schoeman, and up to Excelsior Street) is predominantly an office area with intermittent flats. Although new office- and business complexes were developed since its inclusion into the CBD in 1990, a relatively large number of dwellings were converted into dwelling house offices. This area has redeveloped at a slower rate than the southern section of the CBD.

Western Sector

The western section of the CBD – between President Kruger Street and Dahl Street – hosts a variety of business activities such as offices, retail, service industries and motor industry related businesses. Only a few of the erven are still used as residential dwellings, with some used as boarding houses.

The northern part of this area is characterized by several retail facilities offering building materials. The southern portion – between Grobler Street and Thabo Mbeki Street (including the area north of Grobler Street between Church and Dahl Street) – primarily developed as a motor town with many erven being used for motor industry related businesses.

North- Western Sector

The north-western section of the CBD – the six street blocks abutted by Excelsior, Buite, Devenish and Dahl Streets – is the most problematic section of the CBD. This area contains a mix of uses, most of which are illegal.

- Large numbers of people (up to 20 and more) use existing houses for accommodation purposes. Little or no attention is given to the maintenance of the properties resulting in dilapidation, and health and safety risks,
- Informal taxi stands are established on two, vacant municipally owned erven immediately west of the precinct (along Buite Street),

- Since its inclusion into the CBD only a small number of properties have developed for business related purposes. The majority are situated along main streets such as Devenish, Rissik and Excelsior Street. Some houses are informally utilized for business or office purposes without any upgrading or maintenance to the structures,
- North of the railway line comprises of a bus depot, long distance taxi rank and the Itsoseng Entrepreneurial Centre, which developed over the past decade,
- The municipality developed the Itsoseng Entrepreneurial Centre, facilities for Small, Medium and Micro Enterprises (“incubator” for manufacturing SMME’s), and facilities for hawkers in proximity to the upgraded bus and taxi terminus. The aim was to create and stimulate growth and development in the city. The centre targets members of socially and economically disadvantaged groups, woman, youth, and the disabled,
- Since the 2005 plan, the Itsoseng Entrepreneurial Centre has been linked with the Polokwane CBD by way of pedestrian and vehicular railway line crossings for improved access.

9.3 ZONING

Refer to:

Diagram 19: Zoning

The CBD is predominantly zoned as ‘Business 1’, with its largest clustering of institutional and Government uses in its southern sector. There is a concentration of Business 2 and 3 uses along the north-south high streets enabling a mix of retail, commercial uses, and office spaces.

The north wester sector is predominantly zoned as residential 1, however, land uses do not match with zoning rights, causing illegal, overcrowded and exploitative living conditions that aren’t being managed. Controls are important in mitigating the health and safety risks for citizens and residents that make use of this zone.

The transitory zone between the CBD and eastern suburbs contains some Residential 3 zoning – enabling a greater urban mix live-in density within the CBD.

9.4 DEVELOPMENT CORRIDORS

Refer to:

Diagram 20: Development corridors

The CBD’s growth and development are supported by arterial corridors connecting to its suburbs and hinterland beyond. Future settlement and economic development opportunities should gather along activity corridors and nodes that link main growth centres. Important development corridors promoting planning and policies – some of which have their origin in or through the CBD – are discussed below.

Northern Gateway Development Corridor

Starting at Landros Maré Street extension on the northern border of the CBD, the corridor runs through the industrial areas (Ext 3 and 12), past the International Airport, and includes parts of Annadale.

Areas around Polokwane International Airport could potentially develop into an Industrial Development Zone (IDZ) with emphasis placed on good processing and exportation to the Southern African region.

Southern Gateway Development Corridor

The Southern Gateway Corridor shows successful catalytic responses to development corridor planning that considers recent development trends. Continued consideration of appropriate land use is essential for the long-term sustainability of the corridor while not jeopardizing other initiatives of the SDF plan.

Eastern Development Corridor

This Functional Development Corridor has been called the Eastern Corridor or Private Transport Corridor. It originates at the parallel, Thabo Mbeki- and Grobler-, one-way streets, and stretches from Biccard Street up to Savannah Mall east of the CBD.

Outer Eastern Link

This development corridor continues onward from the Eastern Gateway Development Corridor's end. Forming part of a much wider-, Gauteng/Tshwane – Polokwane – Mankweng – Tzaneen Development Corridor (DC1) – it plays a major role in integrating Polokwane and the far eastern Mankweng clusters with one another. It connects the areas of the Boyne and Ga-Mokwane villages on the eastern border of Polokwane where development should focus around the major intersections along the route.

9.5 LUMS AND THE TOWN PLANNING SCHEME

Town Planning Schemes represents statutory administration or day-to-day and site-specific management of land uses, whilst other policies and planning documents (e.g., SDF, CBD Development Plan, Framework Plans) represents strategic future planning on a broader scale.

The Polokwane Council resolved on 22 May 2008 to accept the draft town-planning scheme known as the Polokwane/Perskebut Town Planning Scheme, 2007. This scheme is an amendment and/or extension which substitutes the Pietersburg/Seshego Town Planning Scheme, 1999.

The 2007 Land Use Management Scheme (LUMS) is a more comprehensive and practical scheme than the 1999 Town Planning Scheme. The basis of the LUMS derive from policy and strategic decisions identified in the IDP, and more specifically – the Spatial Development Framework. They are acknowledged as the mechanism used to administer and execute the Spatial Development Framework toward obtaining and securing the Municipality's desired spatial form. It addresses property and land use rights at the level of individual properties/erven.

Two facets of the LUMS are necessary to ensure effective land use management, namely:

- zoning and zoning schemes,
- land use policies or framework plans.

The CBD UDF is therefore to be prepared in such a way that it is translatable into an adoptable and enforceable land use plan and zoning scheme.

9.6 OWNERSHIP

Refer to:

Diagram 21: Land Ownership

Private Sector Landowners

Most of the land in the CBD and Urban Development Zone (UDZ: 2005) is privately owned. Low levels of government-owned land present a challenge to implement a balanced public open space and recreational realm within the built fabric. Dominant, privately-owned sites therefore impact the function, activities and offering of the CBD and ultimately its transformation.

The UDZ therefore endorses urban regeneration and transformation through private sector incentives. These aim to make CBD investment attractive, with a goal of delivering a broader mix of uses within its boundaries. Densification and a greater mix of uses make large infrastructural urban investment more feasible and heightens their impact. Large-footprint, private land uses/owners and places of interest include:

- Game – Hospital Street,
- The Indian Centre Taxi Rank – Excelsior Street,
- The Taxi Centre Shopping Mall – Church Street,
- Limpopo Mall – Church Street,
- Superspar, City Centre – Corner of Excelsior and Dahl Streets,
- Lighthouse Mall Shopping Centre – Jorissen Street,
- Checkers & Plastic Corner Centre – Biccard Street.

Municipal, Government and SOE Ownership

Portions of land within the UDZ is owned by the Municipality, Government and State-Owned Entities. These properties enhance access to urban land for the implementation of selected projects and must be considered for quick-wins projects where land acquisition is not a challenge and where urban transformation can occur faster.

Key Municipal, Government and SOE sites adjoining the UDZ that have a critical role in the functioning of the CBD include:

Central

- Polokwane Municipality Civic Centre – corner of Landros Mare and Bodenstein Street.

North

- The Polokwane Transport Facility (Municipal)
- the Polokwane Railway Station (PRASA)
- Hoërskool Pietersburg, (Provincial),
- The Polokwane Provincial Hospital (Provincial),

East

- Department of Education (Provincial),
- Polokwane High Court (Provincial).
- Correctional Services.

South

- Polokwane Golf Club and Municipal Sports Grounds (Municipal).

West

- Steyn Park and the Sterkstroom/Sandriver tributary greenbelt (Municipal),
- Dahl Street Cemetery (Municipal).

9.7 INFORMAL, ILLEGAL AND ANTI-SOCIAL ACTIVITY

Land Use Rights:

The north-western part of Polokwane CBD's legal land rights doesn't reflect the area's actual uses. In this area approved land rights include motor repair workshops, restaurants, a spaza shop and 33 properties converted into student accommodation. Church gatherings and car-wash facilities pop-up informally but occur at a minimal level. There are illegal connections for water and electricity with improper sanitation services.

Accommodation

Living conditions in the CBD have declined. It is common to find temporary partitioning in overcrowded spaces with no provision of security and safety measures. Illegal power and water-connections pose great dangers to growing, overcrowded conditions. A lack of law enforcement and cooperation between community and council is resulting in a rapidly decaying area.

A desperate need exists for greater varieties of accessible/low-cost shelter and housing typologies that provide safe, secure and dignified living conditions for more people.

Street Traders, Markets and Taxi Ranks

The CBD attracts street trade engaged in the opportunities offered by public spaces and streets. Within the retail core, along energetic streets, traders

are branded as an obstruction to business operations and pedestrian flow on sidewalks.

Street-trade economies should be accommodated where urban conditions meet their specific needs. Trade, at its core, cannot be relocated or removed from its location-sensitive requirements. It redirects to- and relies on profitable routes and activities and are an inseparable part of the CBDs scales of economy and operational outcomes. The obstructive interpretation of street trade highlights the CBDs inability to fully address current spatial needs. The needs of all urban economies and livelihoods must be integrated into the design considerations addressing the CBD's most pressing current challenges of spatial transformation.

9.8 BUILT FORM CHARACTER

Refer to:

Diagram 22: Built Form Character

Diagram 23: CBD Districts

Overall Architectural and Built Form Character

The heart of the CBD established along the north-south axis of the R101/ Market and Landros Mare Streets – Polokwane centre's most direct through-route. These well-established high streets are defined by formal sidewalks, continuous ground floor retail edges, business operations and office buildings. This zone of the CBD displays the highest built coverage.

The CBD grid parallel to the high streets – between Genl. Joubert and Dahl streets, from Thabo Mbeki Street in the south to Rissik Street in the North – has a higher concentration of workshops and light industrial uses and a lower built coverage. Street definition is weakened, with inconsistent building setbacks, various treatments of on- and off-street parking, inaccessible or non-existent pedestrian walkways, as well as a lack of street trees and a reduction of active frontages. In this zone, the streets do not cater for pedestrians and are largely vehicle dominated.

Several taxi ranks (Polokwane-, City Centre- and The Indian Centre Taxi Ranks) are in the northwestern portion of the CBD – between Market and Dahl Streets (east-west), and Excelsior and Devenish Streets (north-south). The mix of uses intensifies between Limpopo Mall and The Indian Centre, with street reserves becoming less formalised toward the west and northwest along the railway line and Nelson Mandela Drive. The most north-western area of the CBD is under great pressure to transform. Residential typologies are occupied with unapproved, illegal uses.

The CBD grid east of Landros Mare and up to Biccard Street, shows a gradual and consistent transition into the eastern suburbs.

The Image of the City

In *The Image of the City*, author Kevin Lynch introduces and describes the following key elements –districts, nodes, pathways, landmarks and edges and gateways. These urban elements build the user’s experience of the city, its legibility, and the image it creates in the user’s mind.

Districts

The CBD is divided into several districts. In Polokwane they are primarily anchored by clustered institutions or similar uses. These are:

- The Public Transport District _ CBD North:
 - Polokwane Train Station,
 - Polokwane Bus Station,
 - Indian Centre.
- The Administrative District _ CBD Northeast:
 - Department of Home Affairs,
 - Department of Education,
 - Department of Public Works,

- Correctional Services,
- Deeds Office.

Medical District _ CBD East – extending into the suburbs:

- Medpark,
- Mediclinic Polokwane,
- Surgical Wound Care Clinic,
- Limpopo Sports Medical Centre,
- Unicare,
- Lancet Laboratories,
- Limpopo Mediclinic ER.

▪ Government District – CBD Southeast:

- Polokwane High Court,
- Polokwane Magistrate Court,
- Polokwane Municipality,
- Polokwane SAPS,
- Capricorn District Municipality,
- Limpopo Roads Agency,
- Limpopo Provincial Treasury,
- Limpopo Department of Public Works,
- Limpopo Department of Transport,
- Limpopo Cooperative Governance, Human Settlements & Traditional Affairs,
- Limpopo Department of Social Development,
- National Development Agency,
- Department of Health and Welfare,
- Department of Sport, Arts and Culture,
- Department of Economic Development, Environment and Tourism,
- Department of Health and Social Development,

Sports District:

- Peter Mokaba Stadium,
- The Polokwane Country Club,

- Polokwane Cricket, Bowls, Rugby, Athletics, Badminton, Ring ball, Squash, and Golf Clubs,
- Virgin Active,
- Radisson Hotel.

Nodes

Spatial distinguishable nodes are areas and places of interest in the CBD that have a particular identity. Among these:

- **Market and Landros Mare High Street Node:**
 - The Heart of the CBD,
 - Retail and commercial cluster with ground level shopfronts,
 - Active pedestrian area with sidewalk trade,
 - R101 vehicular thoroughfare,
 - Congested with insufficient parking.
- **The Central Mixed-Use Node:**
 - Predominantly retail and commercial uses,
 - Includes offices, workshops, etc,
 - Less congested with more available street parking,
 - Built form and open space/streetscapes are run-down.
- **Polokwane City Square and Civic Centre/ Jack Botes Park Node:**
 - Largest formal public open space within the CBD – one of few within the CDB,
 - Park with and established green structure,
 - Anchored by Polokwane Municipality, Government Departments, educational institutions, etc,
 - Contains places of social and cultural interest – Polokwane Visitors Information Centre, Hugh Exton Photographic Museum, The Irish House Museum, Jack Botes Hall, Roast and Toast Café, KFC, etc.

- **The Sports Node:**

- Largest variety and clustering of sports facilities and clubs in the city,
- Major open space bordering the N1 and Polokwane Game Reserve.

- **The Western Greenbelt Node:**

- Defined by the Sterkstroom/Sandriver tributary greenbelt, Dahl Street Cemetery, Steyn Park, and by extension its connection to the Polokwane Golf Course and Sports Node,
- Largest ecological corridor and natural green space leading into the CBD,
- Bordered to its west by Nirvana Industrial Node – functionally and spatial not integrated.

Regional Gateways

Regional urban gateways are:

- **Eastern Gateway, along Grobler Street.**
 - Affluent eastern suburbs,
 - Established green structure/tree lines,
 - Savannah Mall,
 - Medical District.
- **Southern Gateway, along the R101.**
 - Meropa Casino and Entertainment World,
 - Limpopo Tourism Agency,
 - Small holdings and Nirvana suburb and extensions,
 - Big-box stores (Builders Warehouse/Pick and Pay),
 - Car Dealerships.
- **Southern Gateway, along Silicon Street.**

- Polokwane Game Reserve,
 - Peter Makoba Stadium, and the Polokwane Sports Precinct.

 - Southern Gateway, along Church Streets.
 - Polokwane Game Reserve,
 - Bakone Malapa Open-Air Museum,
 - Southern suburbs and small holdings.

 - Northern, Airport Gateway; along the R101.
 - Polokwane International Airport,
 - Small Holdings,
 - Northern Industrial Zone including big-box stores (Makro, The Fresh Produce Market,
 - The Polokwane Railway Yards,
 - North-eastern suburbs.

 - Nelson Mandela Drive / R521, Northern Gateway.
 - Less established, sprawling low-density, far-north-western suburbs of Seshego and beyond,
- R101 Northern Gateway:
 - Hospital Street industrial to urban transition – from big-box to urban grid,
 - Polokwane Railway Station and the Indian Centre Taxi Rank.

CBD/UDZ Gateways

- Grobler and Thabo Mbeki Streets, Southwestern Gateway:
 - Defined by the Sterkstroom/Sandriver tributary greenbelt crossing.
 - Steyn Park and Dam

- Church Street Southern Gateway:
 - Civic Park (Jack Botes Park) and Municipal Offices.

- Grobler Street, Eastern Gateway:
 - Suburban/Urban transition at Biccard Street crossing.

- West Street/Rissik, North-western Gateway
 - Spruit and greenbelt crossing into CBD,

Pathways

The urban grid of the CBD provides a choice of movement patterns, contributing to the area's permeable nature.

Primary pathways through the UDZ provide:

- A mix of uses along active streets,
- Connectivity between places of significant interest,
- Comfort in the form of trees and sheltering from extreme weather,
- Safety and security.

Landmarks

Notable landmarks forming points of orientation within the UDZ are:

- SABC Park - Northern Gateway,
- Indian Centre Taxi Rank,
- Limpopo Mall and Polokwane Taxi Rank,
- Steyn Park - Western Gateway,
- Dahl Street Cemetery,
- Municipal Office and Jack Botes Park.

Edges

Edges resonate the contrast in transitioning urban conditions and spatial patterns. Notable edges throughout the UDZ are:

- SABC Park: large open space where various spatial patterns merge:
 - Central CBD Grid,
 - Northern Industries and Railway System,
 - Large, Impermeable land parcels around the correctional services.

- Rissik Street-West / North-western corner of CBD: transitory urban zone defined by illegal land uses and lack of urban management.
- Steyn Park, Dahl Street Cemetery and Sterkstroom/Sandriver Tributary Greenbelt.
- Biccard Street Urban-Suburban Transition Zone.

9.9 PROPERTY MARKET OVERVIEW

This section is elaborated on in **ANNEXURE A- PROPERTY MARKET OVERVIEW**

Refer to:

Diagram 24: Roads and Movement

Diagram 25: Public Transport

Economy

CoP's GDP doubled to R115.1 billion in 2021 – contributing 24.41% to the Limpopo Province GDP and 1.85% to the National GDP. The city contributes 77% to Capricorn district's GDP, and over 24% to Limpopo's economy.

Over the past decade primary economic sector activities had the highest annual growth rate in Polokwane, namely:

- The agriculture sector: 6.75% positive-growth.
- The mining sector: 6.73% positive-growth.

The secondary economy had a much lower growth rate with only manufacturing achieving growth. All tertiary economy sectors grew, with the highest being community services (at 2.98%) and finance (at 2.3%).

Employment

CoP's economy employed:

- 171,000 in 2011,
- 264,000 in 2019,
- 240,000 in 2021 – lowered due to the impact of Covid 19.

The largest employment sectors in 2021 were:

- Community Services: 66,605 employees (27.77% of total employment)
- Trade: 58,493 employees (24.39% of total employment)
- Informal sector: 57,000 employees (23.6% of total employment). This figure has increased significantly from over 44 000 in 2011 – a growth of over 1200 per annum.

The trade sector recorded the highest number of informal employments with over 21 000 employees which is 38.3% of the total informal employment.

Size of Property Market

The property market's size and offering has not significantly changed over the last seven years, since the 2015 CBD Framework, with approximately 1.6 million m² of developed area in the CBD:

- Retail: 28%,
- Offices: 46%,
- Residential: 7%
- Motor industry: 6%.
- Other major uses include education and overnight accommodation of about 2%.

Most city blocks contain a mix of uses with retail being the dominant land use north of Thabo Mbeki Street / Civic Park (Jack Botes Park). Offices concentrate along the central core, spreading south toward the sports node and east between Biccard and Hans van Rensburg Streets. Government and Municipal offices spread across the south and eastern CBD. Motor trade is clustered at major CBD Gateways while Educational Facilities occupy much of the core's above-ground floor spaces. Some medium density residential uses occur along Voortrekker Street while the area between Buite- and Dahl Street is experiencing illegal densification and overcrowding.

Property Trends

Over the past 12 years, nearly 615,000m² has been developed by the private sector, across the entire municipality. About 72% is allocated to housing. Commercial development totalled nearly 173 000m², with industrial making up 44%, retail 9% and offices 17%. In 2021 development reduced dramatically to 4000m² from previous highs of over 50 000m² in 2018.

Retail

Retail in the CBD is mainly clustered between Thabo Mbeki Street to the south, Biccard Street to the east, President Kruger Street to the west, and Excelsior Street in the north. The CBD's key commercial nodes – the historic core around Civic Park (Jack Botes Park) and the northern transport core between Limpopo Mall and Polokwane Bus Station – attract a mix of street trade and formal retail.

Office

Office use is more widely distributed than retail, although there is a concentration in the central and southern parts. The largest office block concentration is south of Thabo Mbeki Street. Government and municipal offices are mainly clustered in the central, eastern, and south-eastern parts of the CBD area, while the low intensity offices and related uses are clustered in the southwestern area.

Industrial Warehousing

There is little industrial activity in the CBD. Some warehousing and building supply retailers are in the central, western portion of the CBD in light-industry premises. Larger industrial zones border the CBD, clustering along the railway system to the west and north of the CBD.

Residential

Residential uses are extremely limited in the CBD. The north-western cluster comprises single dwelling residential sites in transitioning to accommodate large numbers of people. These property alterations and addition are largely in unapproved and under-serviced.

Some sectional title housing is located along the CBD's eastern edge, transitioning into suburbia.

The age of property ownership in Polokwane Central is also in transition as older people sell to younger buyers. Nearly half of buyers in this area are under the age of 35, primarily seeking reasonably priced, sectional title units close to the CBD. Areas with higher property prices are further east toward Bendor, attracting an older age bracket of buyers. Seshego has the lowest percentage of buyers in their youth.

Subsidy Housing

The housing demand is estimated at 57 000 including informal settlements households, households in rural areas, blocked housing backlog, gap housing, and greenfield housing development. The overwhelming majority of these households have a monthly income of less than R3 500 and are living in overcrowded conditions and in informal houses. Between 2016 and 2020 the municipality delivered well over 5 000 housing opportunities including serviced land. However, the rate of new housing need is overwhelming in relation the supply.

Rental Housing

The municipality established an entity called Thabatshweu Housing Company Pty, t/a Polokwane Housing Association (PHA), with a mandate of developing and managing rental housing within its jurisdictional area. The municipality, in support of the rental housing initiatives avail land to PHA and has designated Restructuring Zones to enable PHA to access the Restructuring Capital Grant (RCG) administered by SHRA for social housing

development. Polokwane Housing Association is currently managing 697 rental units of which 508 are social housing and 189 are Community Residential Units (CRU).

Motor Industry

Most motor industry related activities are concentrated around the central-western and northern entrances into town which historically formed part of the N1 link through the CBD area.

Education

Situated mainly in the central core, major facilities are the Tshwane University of Technology and the Itsoseng Entrepreneurial Centre in the north, and the UNISA Polokwane Campus in the south. The CBD accommodates a wide range and diversity of education and skills development, forming an important asset to the CBD.

Tourism

Hotel and overnight accommodation are mainly clustered around the eastern entrance into the CBD around Thabo Mbeki Street. Guesthouses occur quite frequently in the far-western strip fronting Voortrekker Street.

9.10 ROADS, PEDESTRIAN MOVEMENT AND PUBLIC TRANSPORT OVERVIEW

This section is elaborated on in **Annexure B – Engineering Inputs**

Refer to:

Diagram 24: Roads and Movement

Diagram 25: Public Transport

Roads and Movement

Primary routes connecting the CBD to its suburban hinterland, along a North-South alignment, are:

- Nelson Mandela Drive connects Seshego and far-north-western suburbs to the CBD, running parallel to the CBDs eastern edge’.
- Market Street (one way north), and Landros Mare Street (one way south):
 - The R101 splits into two parallel one-way routes within the CBD and forms the two main, highstreets of Polokwane central,
 - The R101 South connects to the city’s Southern Gateway and N1,
 - The R101 North connects to Polokwane International Airport, and its re-link to the N1 toward Musina,
 - Market Street also splits off into the R521 North, providing an alternative route to Seshego via Polokwane Drive, to the north, toward Ga Ramongoana, Ga-Semenya, and further north to Alldays.
- Dorp Street runs along the eastern edge of the CBD connecting industry and the airport in the north and the Southern Sports Precinct, Peter Mokaba Stadium, and further South, across the N1, to Polokwane Game Reserve.
- Church Street is in the centre of Polokwane's CBD and provides access to the Polokwane taxi rank and Limpopo Mall. The road becomes R37 in the south towards Ga-Chuene and Lebowakgomo.

Primary routes connecting the CBD to its suburban hinterland, along an East-West Access, are:

- Rissik Street:
 - Becomes West Street at the Sandriver/Sterkstroom tributary crossing from the CBD into the Western Suburb,
 - West Street becomes Matlala Road connecting to the North-western outskirts,
 - Percy Fyfe Ga-Mashashane Roads splits off West Street serving far western small holdings, farms, and townships.
- Devenish, Grobler and Thabo Mbeki Streets connect to the R101 on the western edge of the CBD. These streets extend into the eastern suburbs,
- Devenish Street links Nelson Mandela drive with eastern suburbs, and
- Marshall and Suid Streets (both one-ways between Totius and Webster Streets) are the most southernly continuous east-west connector.

Public Transport Routes and Facilities

Primary taxi routes to the CBD are along:

- The R521 links the areas of Ga-Ramongoana to Ga-Hlahla to the CBD, passing Polokwane International Airport, Annadale and Ext.8 & 9 industrial zones. The route enters the CBD at Market Street,
- Nelson Mandela Drive / R567 links Seshego, Perskebult, Mabokelele and beyond, to the CBD via Rissik Street – west,
- West Street – Matlala Road, connects far western townships to the CBD, entering at Rissik Street-west,
- Thabo Mbeki & Grobler Streets connects the CBD to the far eastern townships of Mankweng and Boyne – via the Eastern Gateway – passing Savannah Mall and well-established eastern suburbs.

Most large taxi ranks and holding spaces cluster in the north and north-western sector of the CBD. It includes.

- The Indian Centre Taxi Rank,
- North of the railway line is the Polokwane Bus Station and further north lies Polokwane Train Station,
- City Centre Taxi Rank: at the western gateway to the CBD, on Rissik Street. It is located between the Indian Centre Taxi Rank and Polokwane Taxi Rank,
- Polokwane Taxi Rank: adjacent to Limpopo Mall and it is the most central, formal taxi rank in the CBD,
- Informal taxi holding spaces cluster along the western greenbelt open space, between Nelson Mandela Drive and Buite Street,
- The Jack Botes / Civic Park Foyer in the southern section of the city serves as an informal taxi rank and holding space.

Other taxi ranks include:

- Informal taxi ranks adjacent to Caltex Westgate along R101
- Taxi rank at Checkers.

Polokwane bus station is located north of the CBD and accessed via a pedestrian bridge-link across the railway line. The bus rank is located south-west of Polokwane Train Station and northwest of the Indian Centre and taxi rank – forming part of the largest transportation node in Polokwane.

Pedestrian Movement

The CBDs street-grid extends uninterrupted through/into the eastern suburbs, enabling pedestrian accessibility through permeability and choice.

The historic street grid is discontinued to the west, with limited access/crossing points over the Sand/Sterkstroom -river tributary greenbelt. Safe, direct pedestrian access is further hampered by large land parcel industrial zones with an irregular street grid pattern, the watercourse/tributary, and Dahl Street Cemetery.

North, and North-westerly integration is affected by the-impermeable railway line with limited pedestrian crossing provided. Industrial zones where the street grid is irregular and therefore more challenging to navigate in direct lines of comfort provides further movement challenges to pedestrians.

Pedestrian access to the north, west and south are all challenged by having to cross high-order roads with high traffic speeds.

Additionally, the Leeto la Polokwane Bus Rapid Transport has several bus stops that make it easier for commuters to access educational institutions, healthcare facilities, and employment centres.

In the current schedule, the routes are TE5B from the CBD to Seshego (Zones 2 and 3), TE4 from the CBD to Seshego (Zones 1 and Madiba Park), F4B from the CBD to Nirvana (Westernburg) and F1 from the CBD to Flora Park.

9.11 SERVICE INFRASTRUCTURE OVERVIEW

This section is elaborated on in **Annexure B – Engineering Inputs**

Refer to:

Diagram 27: Infrastructure and Services: Water

Diagram 28: Infrastructure and Services: Sanitation

Diagram 30: Infrastructure and Services: Electricity

The water, sanitation and electricity infrastructure networks throughout the CBD are consistent in coverage, with minimal interruptions. The varying conditions of these networks are covered in the specialist studies, addressing their extent and capacity for CBD development and densification.

Water

The existing water network within the Polokwane CBD is consistent and fully covers and service the CBD. Water reticulation pipes range between 90mm and 603mm in diameter, with the pipelines ranging from 300mm to 603mm mainly for the Bulk pipelines/ trunk mains from the supply reservoirs.

The two reservoirs supplying the CBD are situated in the Potgieter Avenue reservoir complex located along the intersection of Potgieter Avenue and Rissik Street.

Sanitation

The existing wastewater pipes in the Polokwane vary in diameter. Existing sewer pipes consist of uPVC and baked clay pipes.

Wastewater from Polokwane CBD gravitates to the Polokwane Wastewater Treatment Works (WWTW), which is owned and operated by the City of Polokwane.

Stormwater

The existing stormwater pipelines in the CBD vary in diameter between 450mm and 1500mm. All existing pipelines consist of concrete.

Most of the stormwater catchpits i.e. kerb inlets were noticeable filled with waste/ litter with silt also noticeable along some roadside stormwater kerb channels leading to the kerb inlets.

Electricity

The City of Polokwane CBD has a well-established electrical network and mature area with comprehensive engineering infrastructure and services.

The bulk supply is from Eskom at 66kV. There are two bulk substations on either side of the CBD with dual feeds each to the municipality's substations. There are cables feeding the CBD loads in an integrated manner with bulk power at 11kV. The network is configured in a ring/ dual feed arrangement with the possibility to isolate a single electrical fault and restore power to all/ most consumers while the fault is repaired. The relays at the substations are old technology but functional.

Recently a fourth MV line along Voortrekker Rd was installed and this has augmented capacity in the CBD.

Most of the electrical cable is underground except for areas where Arial Bundle Conductor (ABC) is installed due to theft of cables. Underground cables are preferred to overhead lines due to theft and vandalism.

The City of Polokwane's Energy Services Department takes responsibility for the network systems before the customer's metering point. This includes the electrical infrastructure such as substations, miniature substations, overhead lines, and underground/ overhead electrical reticulation network. The electrical infrastructure is shown in the following diagrams.

It is estimated that there is about 15% of spare capacity in the electrical system which would comfortably accommodate smaller developments and upgrades. Any large developments would need to follow the standard development application procedure and pay the bulk services contribution for the necessary infrastructure upgrades.

The Notified Maximum Demand of 180 MVA for the City of Polokwane contracted to Eskom is noted.

9.12 THE NATURAL ENVIRONMENT OVERVIEW

*This section is elaborated on in **Annexure B – Engineering Inputs***

Refer to:

Diagram 26: The Natural Environment

The Sterkstroom/Sandriver tributary greenbelt connects the western edge of the CBD with the Sandriver, to the northwest. Toward the south, it connects to the Polokwane Sports Precinct and further south to the Polokwane Game Reserve.

Ecological corridors enhance biodiversity while providing critical movement corridors for small animal and birdlife. Celebrated, protected, safe and clean ecological green spaces are a prime urban asset and contribute to raised property value.

It is important to consider CBD land-uses along the greenbelt, as well as edge conditions and treatment that could lead to better functional integration and safe and accessible green realm.

Significant civic and cultural open spaces in the CBD are:

- Civic Park (or Jack Botes Park),
- Mark Street Park (or SABC Park),
- Steyn Park and Dam,
- Dahl Street Cemetery.

These parks accommodate recreation, heritage, arts, and cultural features and activities, are generally well maintained, and well used.

The gateways to the CBD from the west are important as they cross the spruit system at Marshall, Thabo Mbeki, Grobler, Devenish and West Streets. These areas should be further upgraded and enhanced to celebrate these entrances to the city.

The most significant natural environment gateway is at Thabo Mbeki Street where Steyn Park and Dam are located.

To the east of the CBD there are several school sports facilities and recreation areas including the municipal swimming pool complex, and Polokwane tennis club.

The most significant open space complex in the city is the large sports complex to the south-east of the CBD, including the Polokwane Country Club, Golf Course, Cricket, Ring-ball, and Bowling clubs. To the north-east of the sports precinct is the Flora Park Dam with recreational facilities and play equipment.

9.13 PROBLEM STATEMENT AND NEEDS ASSESSMENT

This section of the report investigates the status quo of the UDZ, providing insight into the following UDZ-related problems:

- crime and grime,

- decaying physical structures,
- lack of economic opportunity and growth,
- lack of access to social /municipal services and facilities,
- public transport,
- sidewalk congestion street trading,
- poor infrastructure maintenance,
- weak urban management and bylaw enforcement,
- stagnant property market,
- competing economic centres,
- inconsistent, poor quality public environment.

Strategic Development proposals for the CBD need to consider:

- local economic development and job creation,
- marketing and investment strategies,
- urban management plan,
- safety and security strategy.



Diagram 12: Land Use



Diagram 13: Land Use Composition - Retail, Mixed Use and Commercial



Diagram 14: Land Use Composition – Retail



Diagram 15: Land Use Composition - Street Trade



Diagram 16: Land Use Composition – Industrial



Diagram 17: Land Use Composition – Residential



Diagram 18: Land Use Composition - Social Facilities



Diagram 19: Zoning



Diagram 20: Development orridors



Diagram 21: Land Ownership



Diagram 22: Built Form Character

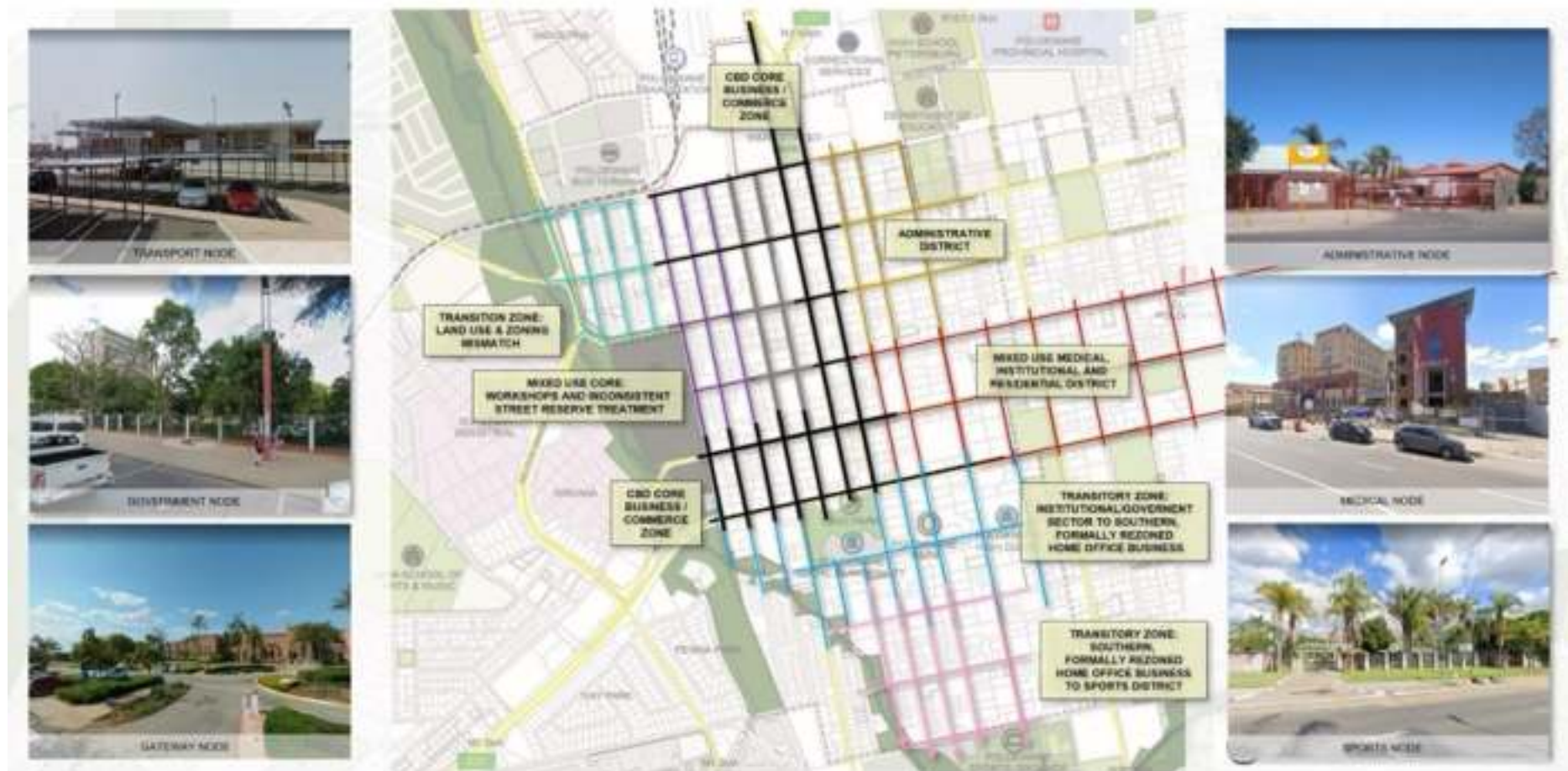


Diagram 23: CBD Districts



Diagram 24: Roads and Movement



Diagram 25: Public Transport



Diagram 26: The Natural Environment



Diagram 27: Infrastructure and Services: Water



Diagram 28: Infrastructure and Services: Sanitation



Diagram 29: Infrastructure and Services: Stormwater



Diagram 30: Infrastructure and Services: Electricity

10 THE PRELIMINARY CBD UDF

10.1 APPROACH AND GUIDING PRINCIPLES

Refer to Diagram 31: Development Planning Guiding Principles

This section translates the findings from the Status Quo Analysis into strategic spatial approaches. These strategies are guided by principles for efficient urban systems and democratic sharing of the public realm. They are:

- **Making connections** for equitable access,
- **A hierarchy of roads** for a balanced movement system,
- A balanced network of nodes and corridors of economic opportunity,
- **An open space network** of active and passive areas defined by clear development boundaries,
- **Residential neighbourhoods** in a range of typologies, densities, and tenure options,
- A broad mix of social and community facilities,
- A network of public transport and pedestrian movement options,
- **A high-quality public environment**, providing a network of community-focused spaces.
- Accommodating services, sustainability, and energy efficiency, through an **accessible and adaptable service network**.
- **A capital web** for private-sector investment to connect into.

The CBD Status Quo Analysis includes regional and metropolitan functionality, existing plans and policies, and development trends. The conclusion from the Status Quo highlights the current challenges and strengths to inform strategic future development. The CBD UDF and vision is informed by the findings and outcomes of the Status Quo Analysis. The

UDF identifies four strategies to derive a more detailed development framework, these include:

- Protect
- Connect
- Grow/Invest
- Manage

Protect

Well-functioning elements of the CBD should be protected for their role in, supporting livelihoods and generating value for citizens. At various scales, these elements include:

- Protecting the regional and metropolitan role of the CBD as a major, accessible economic centre,
- Maintaining the CBD as the container of the highest order of public and social facilities, and infrastructure,
- Bolstering its scales of-, and variety of economic activities, incl. street trade,
- Providing quality public open spaces catering to a variety of social needs, urban programmes, recreation-, and sports facilities,
- Protecting and enhancing the existing building stock
- Providing a variety of affordable housing options

Connect

Connections integrate the CBD with its hinterland. It must manage and accommodate large volumes of vehicular throughfare while promoting a safe, local pedestrian network and active street life. In the CBD, the success of the commercial core relies on balancing these systems and connections.

Invest

Investment should be directed toward the UDF's priority projects. Within this framework, investment opportunities should be elaborated, and management strategies identified for its protection.

Grow

The Status Quo identifies growth opportunities in and around the CBD. The UDF guides revitalisation/growth for creating a sustainable, lively, and attractive CBD.

10.2 CONCEPTUAL FRAMEWORK

Refer to:

Diagram 32: Concept Development – Civic Anchors

Diagram 33: Concept Development – Primary Axes

Diagram 34: Concept Development – Core Mixed Use Development

Diagram 35: Concept Development – CBD Transition Zone East

Diagram 36: Concept Development – CBD Greenbelt Edge

Diagram 37: Concept Development – Key Commercial Nodes

Diagram 38: Concept Development – Mixed Use High-Density Residential

Diagram 39: Concept Development – CBD Support Zones

Diagram 40: Concept Development – Public Transport Circuit

Diagram 41: Concept Development – Gateways and Integrated Street Trade

Diagram 42: Concept Development – Social Facilities and Night-time Economy

Diagram 43: Concept Development – Concept Development Composite
Key concepts for the CBD UDF – informed by the status quo and guiding principles – are:

- **Two, civic- and cultural nodes** are spatially enhanced, protected, and programmatically enriched within the CBD grid structure.
- **Primary axes routes** are:
 - North-South: Landros Mare and Market Streets,
 - East-West: Rissik, Grobler and Thabo Mbeki Streets.
- **Movement within the primary axes:**
 - Thriving public open spaces have exceptionally well-designed pedestrian/vehicle interfaces.
 - Pedestrians are prioritised in the core while the quadrants accommodate vehicular movement, deliveries, and on-street parking.
 - Landscaping, street furniture and architectural controls are strategically designed and managed throughout the core's primary axes, creating a safe, attractive, and inviting public environment.
 - Mid-block arcades offer a unique pedestrian and retail experience and are upgraded and enhanced.
- The CBD allows for a **mix of uses**, including commercial, social, retail, residential, and recreational use. It needs to offer a range of mixed-use typologies at levels of affordability, and tenure.
 - **Core Mixed Use Development** attaches to the primary axes, including social facilities.
 - The southern, municipal precinct is developed as the heart of the city, enhancing its civic identity.
- A **CBD transition zone** addresses the urban/suburban transition through policy and management.
 - The CBD should expand and densify upward/vertically rather than outwards.

- The **CBD Greenbelt Edge** integration with the CBD.
 - The Sandriver/Sterkstroom Greenbelt and Tributary is a recreational and environmental asset with informal and unmanaged uses removed or redeveloped.
- **Key Commercial Nodes**
 - connect via the primary axes.
 - **CBD support zones** accommodate lower order mixed-use development with more relaxed architectural and public environment controls.
 - On-street parking and deliveries are limited inside the primary axes and accommodated within the CBD support zones.
- **Housing**
 - Undeveloped land West of the of the Polokwane Train Station and north of the Polokwane Bus Station, is strategically located for inner-city, mixed use high-density housing.
 - Mixed use, high-density housing enhances the Sandriver/Sterkstroom Greenbelt and Tributary edge through passive surveillance, night-time economies, open space access for city living, etc.
- **Public transport circuit:**
 - Distributes public transports facilities throughout the CBD, along a negotiated route for alleviating thoroughfare traffic pressure.
 - Additional vehicle and pedestrian linkages integrate the CBD with the northern public transport facility and proposed housing development north of the railway.
- **Gateways:**
 - Existing gateways are enhanced, through improved definition of primary axes thresholds into and out of the CBD.
 - Gateways define landscape, and/or architectural/built-form transitions clearly, creating identifiable points of reference.
- **Street trade is integrated and accommodated** at accessible points in formalised shelters. Markets are distributed and accommodated throughout the CBD.
- **Social Facilities** are accessibly concentrated along the primary axes' spines.
 - The CBD must be maintained, managed, and policed to create a safe and attractive environment for users, residents, and visitors.





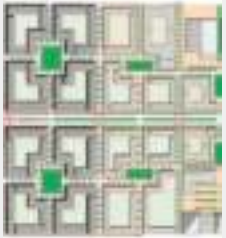



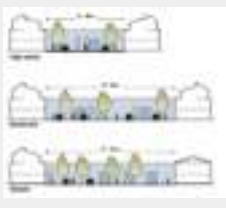

<p>Principle 1: Making Connections</p>	<p>Use road, paths, vistas to connect disparate components of the urban environment</p>		<p>Principle 6: Broad Mix of Social And Community Facilities</p>	<p>Ensure access to educational, recreation and community facilities and appropriate variety to avoid the restriction of choice</p>	
<p>Principle 2: A Hierarchy of Roads</p>	<p>Establish a suitable hierarchy of urban street types and a dense pattern of intersections.</p>		<p>Principle 7: A Network of Public Transport And Pedestrian Movement Options</p>	<p>Provide for all users, pedestrians and cyclists, public transport and private vehicular movement.</p>	
<p>Principle 3: A Network of Nodes and Corridors of Economic Opportunity</p>	<p>Provide a hierarchy of centres and sub-centres within walking distance of the neighbourhoods that surround them.</p>		<p>Principle 8: A High Quality Public Environment</p>	<p>Create an attractive public environment of streets, squares, parks, etc as the focus of community life.</p>	
<p>Principle 4: An Open Space Network</p>	<p>Provide interconnected active and passive spaces that are framed by buildings and activities.</p>		<p>Principle 9: Allow for Services, Sustainability and Energy Efficiency</p>	<p>Establish a sustainable development response that enhances the protection of and access to resources; and enables a physical response that can adapt to changes over time.</p>	
<p>Principle 5: Residential Neighbourhoods with a range of Typologies, Densities and Tenure Options</p>	<p>Mix housing densities and building types to provide for interesting neighbourhoods that cater for a range of incomes and tenure options.</p>		<p>Principle 10: A Capital Web of Public Investment</p>	<p>Provide a 'lattice' infrastructure and public facilities onto which private sector investment can establish itself.</p>	

Diagram 31: Development Planning Guiding Principles



Diagram 32: Concept Development – Civic Anchors



Diagram 33: Concept Development – Primary Axes



Diagram 34: Concept Development – Core Mixed Use Development



Diagram 35: Concept Development – CBD Transition Zone East



Diagram 36: Concept Development – CBD Greenbelt Edge

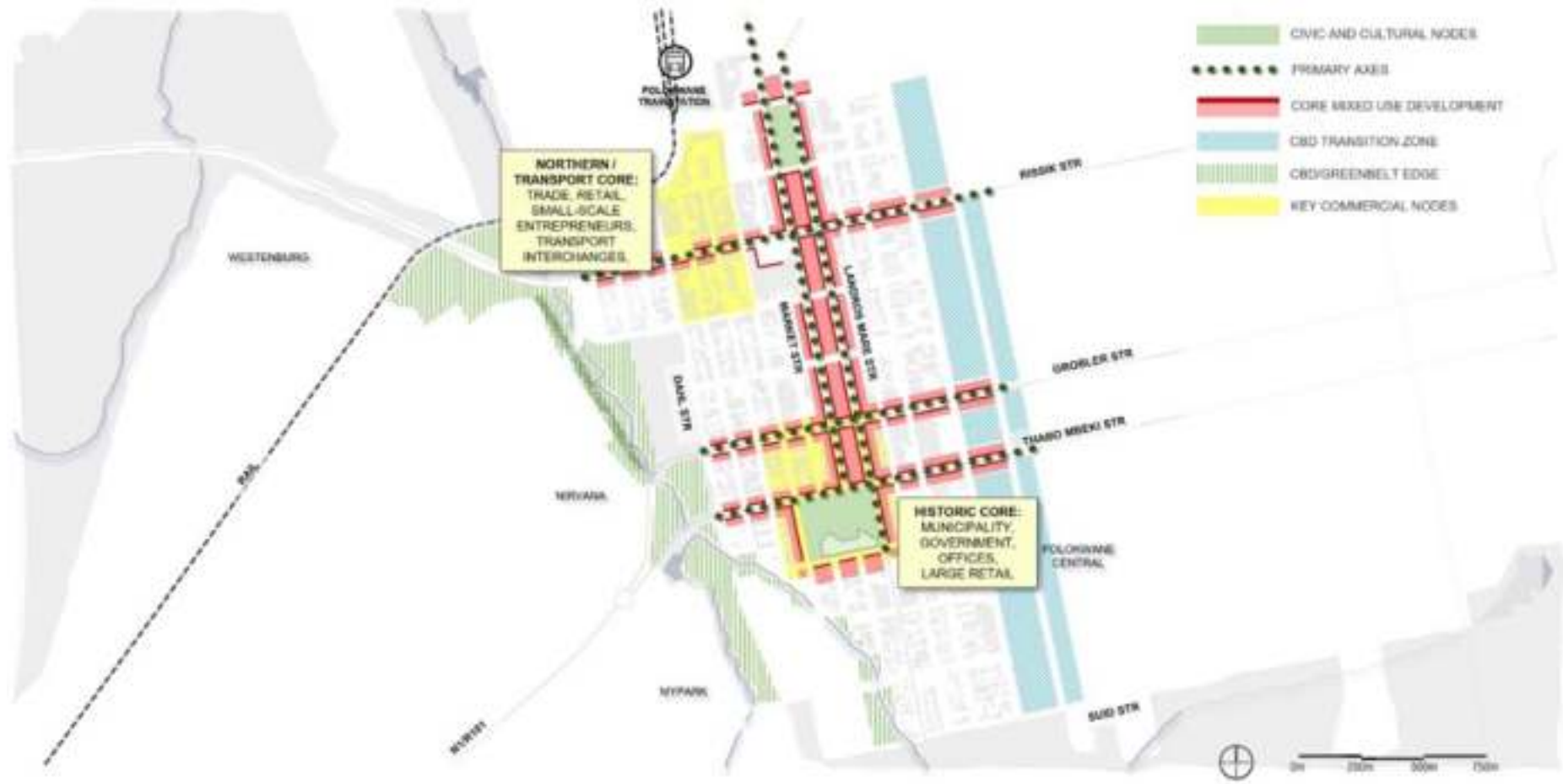


Diagram 37: Concept Development – Key Commercial Nodes



Diagram 38: Concept Development – Mixed Use High-Density Residential

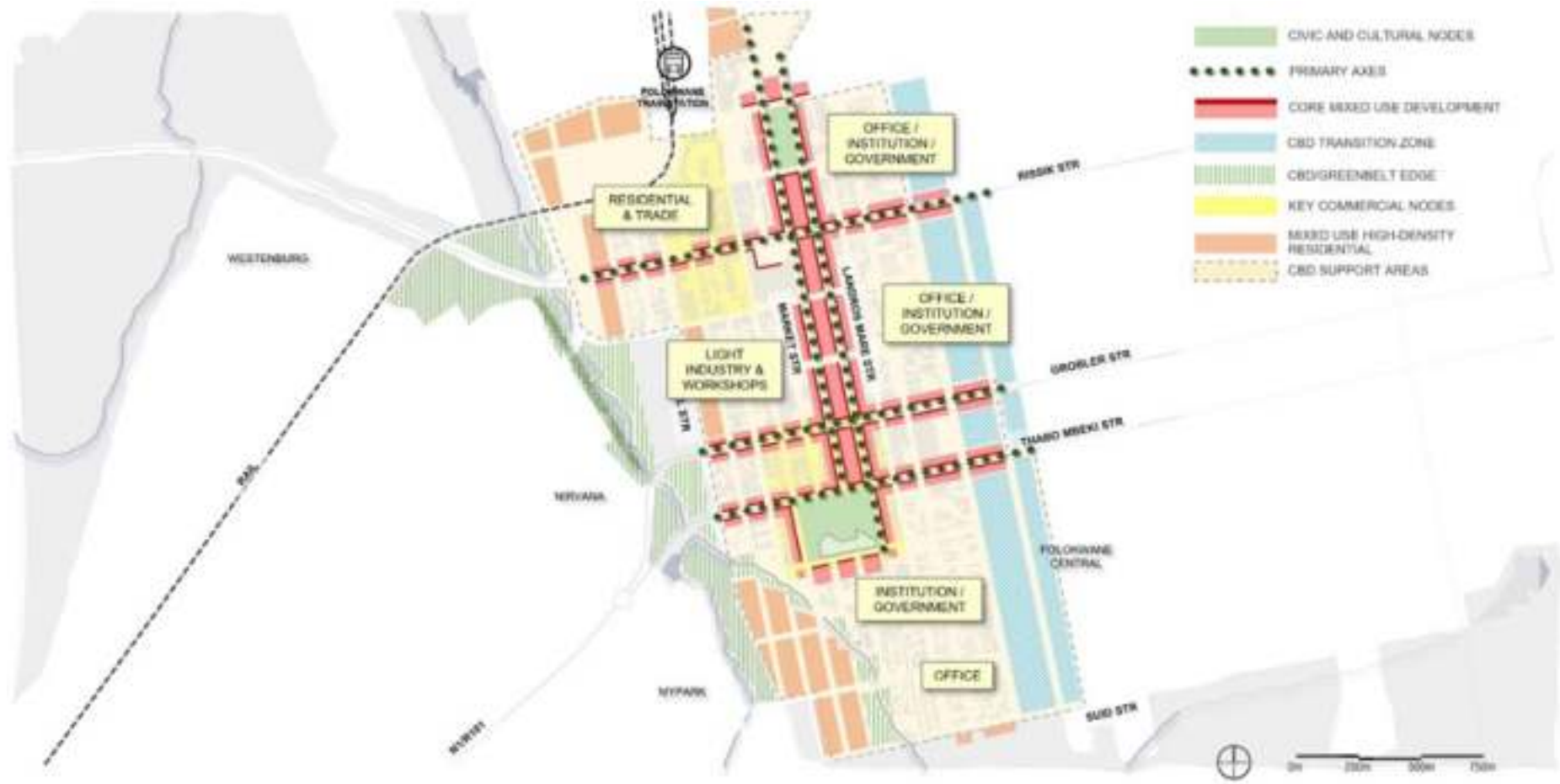


Diagram 39: Concept Development – CBD Support Zones

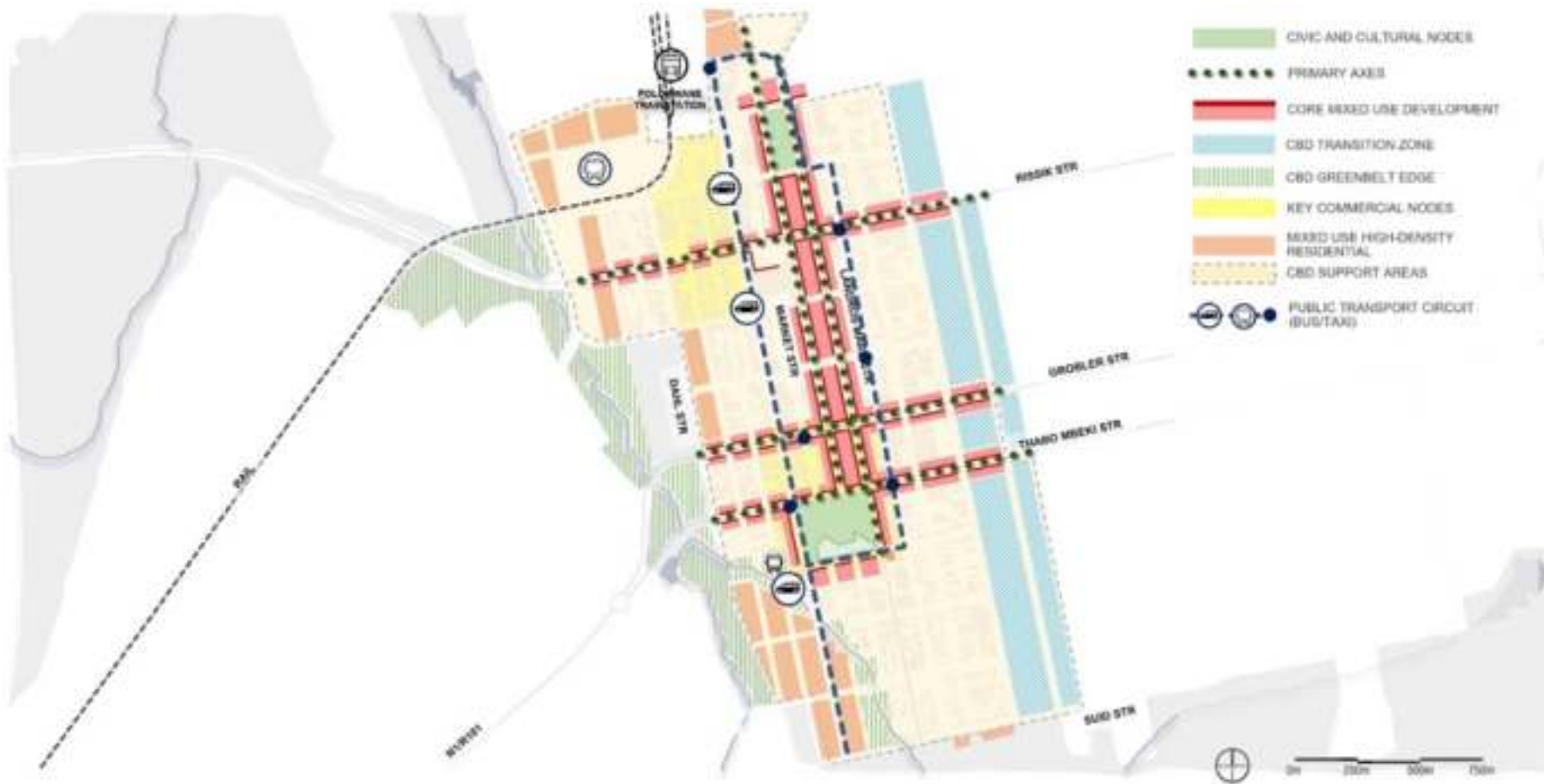


Diagram 40: Concept Development – Public Transport Circuit



Diagram 41: Concept Development – Gateways and Integrated Street Trade

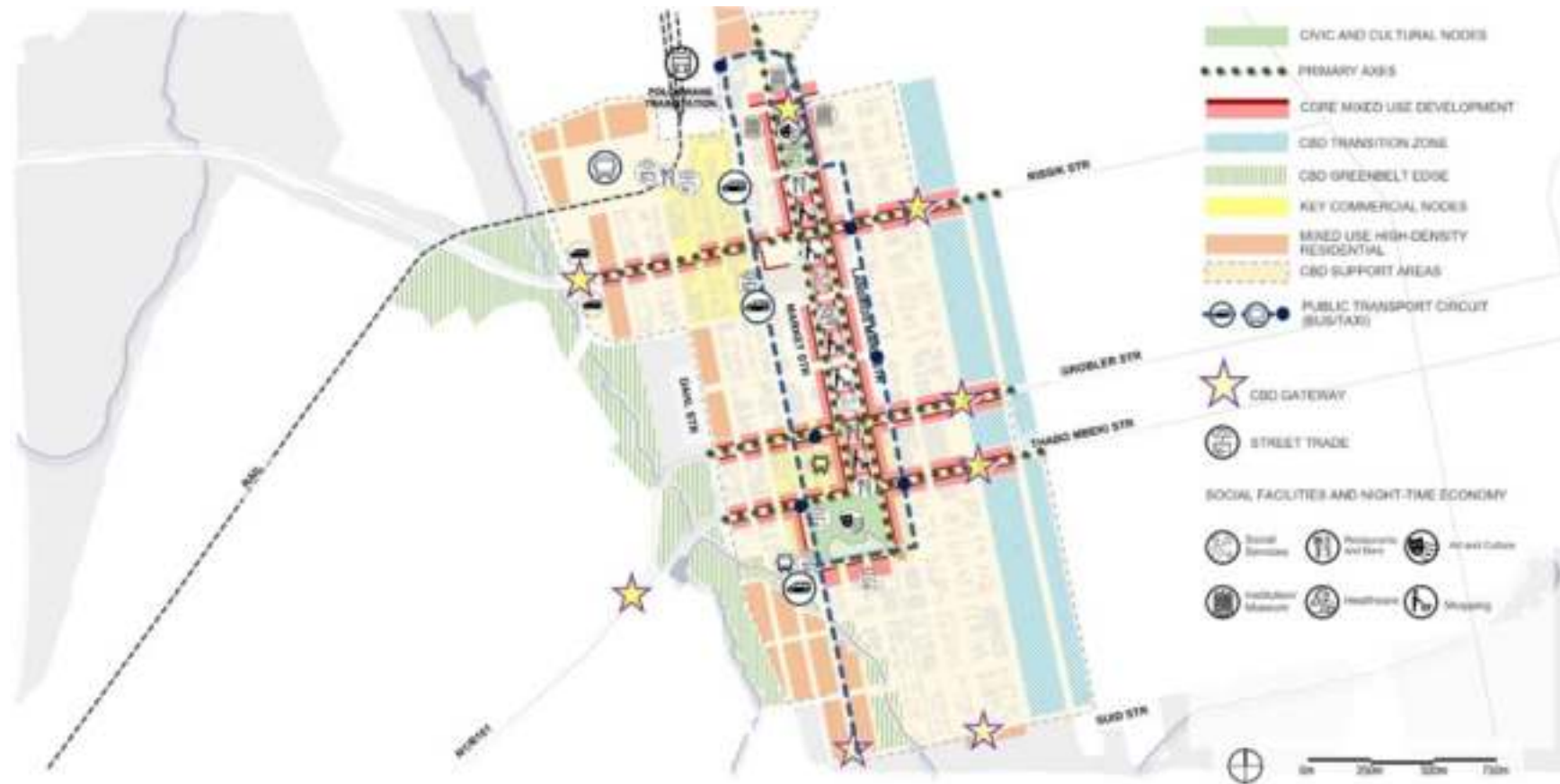


Diagram 42: Concept Development – Social Facilities and Night-time Economy



Diagram 43: Concept Development – Concept Development Composite

11 THE ELABORATED CBD UDF

Refer to:

Diagram 44: The CBD UDF Built Form Plan

Diagram 45: Natural and Urban Green Network.

Diagram 46: The Hard Landscape

Diagram 47: Land Use Activities

Diagram 48:

Diagram 50: Structuring Elements: Birds Eye View

Investment has been made into Polokwane CBD's existing infrastructure, open spaces systems, and built form.

The Built Form Development Vision identifies strategic spatial projects, to address some of Polokwane's current spatial needs and challenges, as derived from the status quo analysis.

CBD structuring elements work in unison. They are:

- The Public Environment and Open Space Network,
- The Built Form and Land Use,
- Roads and Movement Network.

The above elements - layered onto the public realm - interact and address space through the various combinations and interactions of their qualities.

The Public Environment and Open Space Systems consists of a careful blend of accessible natural and protected, green areas, safe and active pedestrian pause and flow areas, as well as motorised and non-motorised modes of transport. They often perform relative to uses assigned along their built edges and the outdoor programmes they're able to accommodate.

The Built Form and Land Use Rights are managed in accordance with the number of people the CBD intends to attract – while attending to their daily, social needs. Maximizing flexibility in mix of use can enable both day- and night-time economies, enhancing the CBD to a 24 hour, seven days a week, safe and economically competitive urban centre. Mixed-use densification generates a concentration of attractions where citizens benefit from its

services and offering. This enhances aspects of safety when there is a greater number of with eyes on the street.

Functional integration occurs through the access people are allowed. Access must be viewed from the perspective of various urban users – most importantly, the pedestrian, as well as those without private vehicles. An accessible city embraces universal access people who need to navigate the CBD safely – most consideration must be paid to the elderly and children.

The city must prepare for a reduction in exclusive transport and establish effective modes of public transport within the CBD boundaries and beyond into its hinterlands. A walkable, active CBD prioritises non-motorised modes of movement and the pedestrian experience, by reducing tensions with fast moving vehicular traffic along strategic routes.

The following section elaborates on the conceptual strategies. Spatial interventions and city investments should support the spatial intention of these strategies.

11.1 CBD STRUCTURING ELEMENTS

Civic and Cultural Nodes

Two, primary open spaces serve the CBD. They must be robust in materiality and use, and therefore programmable with a wide range of activities and events. Inner city parks and squares provide urban citizens with a connection to aspects of nature, recreation, and gathering opportunities.

The UDF protects and enhances the CBD's two most prominent inner-city parks connected via its north-south axes, along Market- and Landros Mare Streets. They are:

- SABC Park in the-North, forming a large foyer and place of arrival, when entering the city from the north,
- Civic Park, located in the heart of the CBD's centre, is landscaped with greenery, providing an oasis with a variety of activities within and along its edges.

Both spaces are to be developed as safe, active open spaces offering a range of cultural, heritage and visitor attractions. A wide programme of day- and night-time activities and events must be welcomed – contributing to making attractive, civic destinations.

Primary Development Axes

The *Primary Development Axes* consists of all sites fronting Market-, Landros Mare-, Rissik-, Grobler-, and Thabo Mbeki Streets. The treatment of the public/private interface where these sites meet the Axes', determines the activation the Axes'.

- Building frontages are to be exceptionally well designed and managed, with the municipality being particularly firm about removing illegal signage and advertising, acting against illegal uses, resolving municipal account-issues, etc,

- New development, upgrades, and redevelopment should respect principles advocating for activate street / public space interfaces and thresholds.

A high-quality public realm is robust, comprising distinct street furniture, street lighting, landscaping, wayfinding, and public art,

- The pedestrian is prioritised while accommodating large volumes of vehicular mobility,
- Street upgrades are strictly based on Complete Streets and Universal Access principles,
- On-street parking is carefully designed along the primary axes mobility routes – avoiding traffic flow disruptions and parking is prioritised along perpendicular and parallel streets,
- On-street deliveries should be limited to avoid mobility disruptions,
- Landscaping, street furniture and architectural controls are implemented and managed to create an aesthetic, safe, and inviting public environment,
- A high-quality environment along the primary axis routes become a destination and attraction for visitors, residents, and workers,
- A safe, clean, comfortable, and aesthetically pleasing streetscape invites users to pause and spend time,
- Pocket parks, public squares, courtyards, street malls etc. enhances the appearance and experience of the CBD. These projects are to be explored in partnership with the private sector,
- A distinct and consistent line of trees, and wide sidewalks and colonnades elevates the Primary Axes' civic status to a processional urban boulevard,
- While the Primary Axes is a priority for major spatial transformation, the entire CBD's public environment is important and receives ongoing maintenance and upgrades.

Core Mixed Use Development

The entire CBD allows a mix of uses. The *Core Mixed Use Development*, intensifies commercial, social, retail, residential, and recreational uses, in a

range of typologies, affordability, and tenure options. It is identified to strengthen the commercial heart of Polokwane - along an established trade route – through use-intensification and densification. Its goals are to:

- Accommodate a diverse land use mix of retail, workshops, etc. on ground floor with offices and residential units developed vertically,
- Encourage and stimulate a night-time economy by promoting restaurants, cafes and bars,
- Include social and affordable housing on vacant sites, but also through the purchase of affordable, well-located, private land,
- Social facilities and community services are catered for and clustered together, serving a regional function,
- Attract and maximise access to social and community facilities. Throughout the CBD, new ones – or those wishing to relocate – should be encouraged to locate to the Core Mixed Use Development Zone.

CBD Transition Zone

The edges of the CBD should be defined and bounded by transition zones where building controls limit incremental expansion into adjoining areas – weakening the role of the CBD.

- The CBD boundary should be defined. Proposed developments are encouraged to find a suitable location within the CBDs various precincts,
- To the east, expansion and changes to land use must be limited. Home offices could act as a transitional-use between Biccand and Dorp Street. Building control and enforcement action should keep CBD elements from incrementally creeping beyond its boundaries, into residential areas,
- The northern boundary is defined by industrial areas, Polokwane Railway Station, the Indian Centre, Game Centre, Correctional Services, Hospital Park and Educational facilities,
- The southern edge is defined by the municipal sports precinct – a large, sprawling site with the potential to accommodate an

important civic use such as the proposed Limpopo Provincial Legislature,

Expansion of the CBD is to be upwards rather than outwards. Redevelopment of CBD properties to taller buildings would allow densification instead of horizontal expansion – diluting the offering of the CBD and compromising the use and ambiance of adjoining area.

CBD Greenbelt Edge

The western boundary is delineated by the Sterkstroom/Sand River Tributary Greenbelt, The Dahl Street Cemetery, and informal taxi holding spaces along Nelson Mandela Drive. It is upgraded as a recreational and environmental asset.

- Informal and unmanaged uses removed or redeveloped,
- The greenbelt and cemetery are regularly cleaned and maintained,
- Pedestrian connections are maintained and expanded where needed,
- Pedestrian walkways connect small park interventions, market gardens and places of interest at strategic points of movement throughout the greenbelt,
- The CBD Greenbelt edge to be upgraded with clearly demarcated access points to well-lit pathways connecting through the Greenbelt,
- Vacant land on this edge should be utilised for development purposes where possible,
- The greenbelt is only viable as a functional, safe, public open space if it is upgraded and supported by strong edge development that could provide passive surveillance through an increase of eyes on the park.

Key Commercial Nodes

The historic, Municipal Precinct and Indian Centre Precinct are the most intensely active economic areas in the CBD. Large retailers, banks and offices define the Municipal Precinct, while the Indian Centre Precinct is a major hub of taxi ranks, street trade and retail. Connected via the Primary Axes, they represent the civic, cultural, and recreational heart of the CBD.

CBD Support Areas

The Primary Development Axes reinforces the remaining 'CBD support areas', each accommodating a lower intensity of mixed-use development, with more relaxed architectural and public environment controls. These areas are:

- *Transport and Mixed-Use Residential Precinct – North of the Railway.* This part of the CBD is under-, or undeveloped and therefore identified for high-density, mixed-use housing with a strong connection to major transport services and work opportunities. The precinct integrates with Polokwane railway station, Polokwane bus station, and industrial areas to its north,
- *Rissik Gateway, Mixed Use Residential Densification Precinct – the six CBD blocks between Dahl and Buite Streets.* The last remaining residential suburb of the CBD transitions to accommodate a need for inner city housing. The area contains many informal backyard dwellings. It's proposed for redevelopment guidance into a high-density mixed use, precinct where high-density, inner-city housing is encouraged,
- *The Central-West District – Between Dahl Street Cemetery and The Primary Development Axes* - is characterised by a mix of light industrial, workshops and automotive uses,
- *The Southwestern, High-Density, Mixed-Use Densification Precinct – between Bodenstein- and Suid Streets.* This area is nestled between the open space corridors and identified for redevelopment guidance into a high-density mixed use, precinct where high-density, inner-city housing is encouraged,

- Mixed use development is encouraged in all areas of the CBD, with government services, commerce and recreational focus directed to be within the primary development axes,
- The public environment for each precinct needs to be appropriate for its character with robust sidewalks, landscaping, and on-street parking, loading spaces, etc.

Linkages integrate the CBD via public transport, to communities who require its offerings. Public transport facilities channel a consistent flow of citizens. The Transport and Mixed-Use Residential Precinct unlocks access to inner-city housing that is closely linked to job opportunities, major public transport facilities, civic, institutional, and healthcare facilities. Two new road links are proposed to pass underneath the railway, functionally integrating the north and south, while creating safer zones of passage and crossing.

These new links are:

- *Excelsior Street:* the existing pedestrian underpass is widened to support vehicles and public space with a street market. The market provides well-lit and cleanable spaces for the existing gathering of traders. Maintained activity along the underpass addresses comfort and safety when passing through the bottlenecking.
- *Buite Street:* extended north, integrating the Polokwane Bus Station and Rissik Street Gateway.

Public Transport Circuit

A new public transport circuit is established for buses and taxis. It operates along the primary axes' perimeter and distributes mini facilities throughout the CBD. It connects major taxi ranks and holding spaces across the CBD. Taxi holding areas are to be formalized and supported by social amenities. It also considers and compliments the BRT routes.

The public transport circuit links outward, to:

- Nelson Mandela drive to Seshego, via Rissik Street,
- N1, via Church Street-south,

- Polokwane Railway Station, via Church Street-north.

Street Traders

Traders are accommodated at accessible points in the form of formalised shelters and markets distributed throughout the CBD. A larger-scale, traders' market could be established in the north-eastern precinct and linked to SABC park and the public transport circuit.

Mini, traders' markets and formal traders' stalls are to be distributed throughout the CBD, along the transit and pedestrian circuit, with traders not permitted to operate elsewhere, unless registered, therefore.

Management and Maintenance

The CBD is well maintained, managed, and policed to create a safe, attractive environment for users, residents, and visitors. Key elements include:

- Management, maintenance, by-law enforcement, regulations, granting of rights, and approval of building plans are the tools required to achieve the above.
- This is addressed further in Chapter 10, Implementation and Urban Management Strategy.

Conclusion:

The CBD structuring elements work together, concentrating services and activities into an equitably, accessible zone that addresses the needs of a wide hinterland.

Repositioning economic and social activity away from the CBD results in decentralisation away from amenities already established at a great cost, within the CBD.

Pulling apart complementary urban functions from one another spreads investment and resources a much wider area, diluting its impact. The CBD's development boundaries must therefore be retained, while its internal functions are upgraded and intensified to operate in smart new ways.

The rich mix of use in the CBD's key commercial nodes support many livelihoods and should be protected, supported, and enhanced for even greater public benefit.



Diagram 44: The CBD UDF Built Form Plan



Diagram 45: Natural and Urban Green Network.

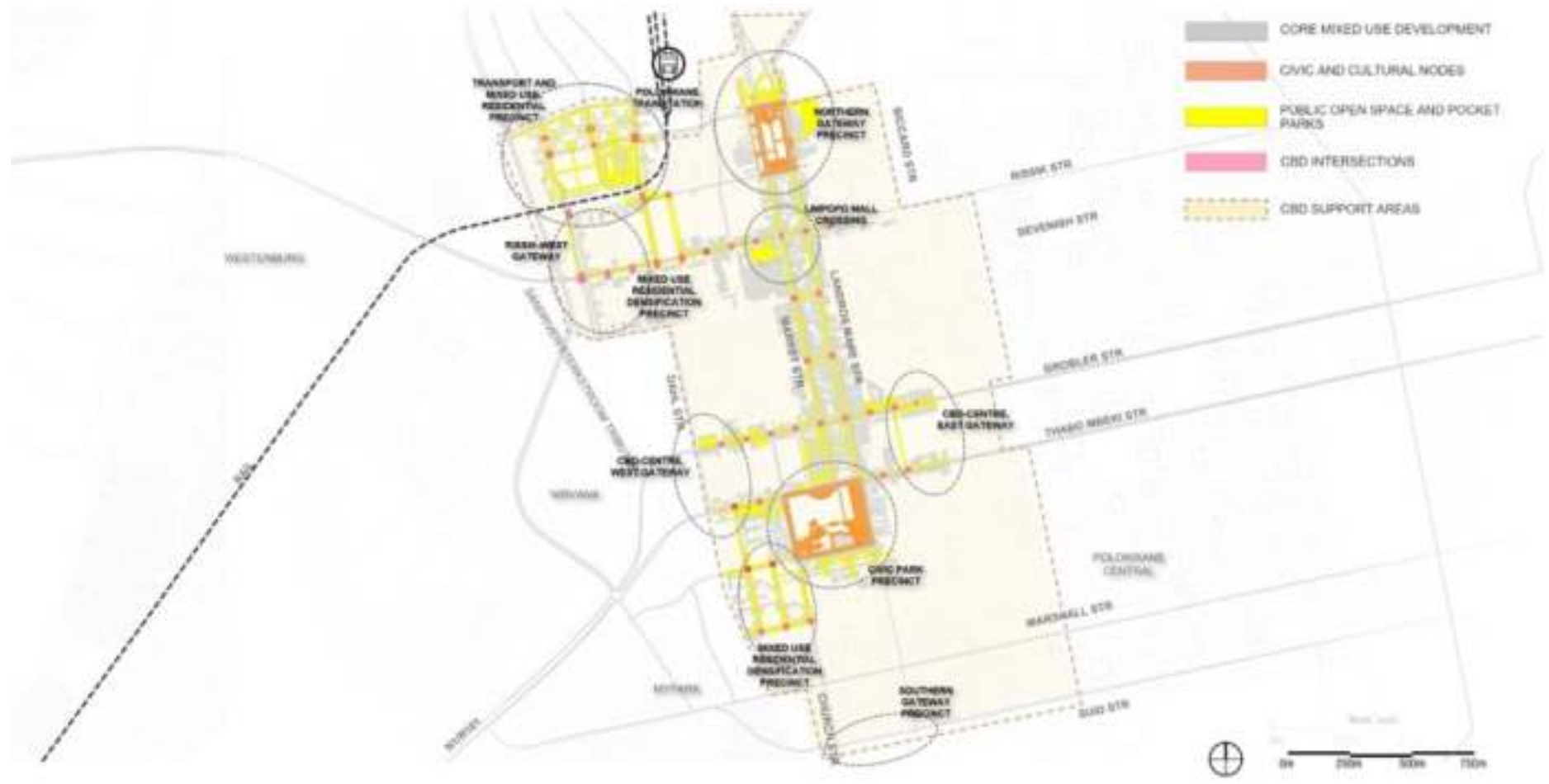


Diagram 46: The Hard Landscape

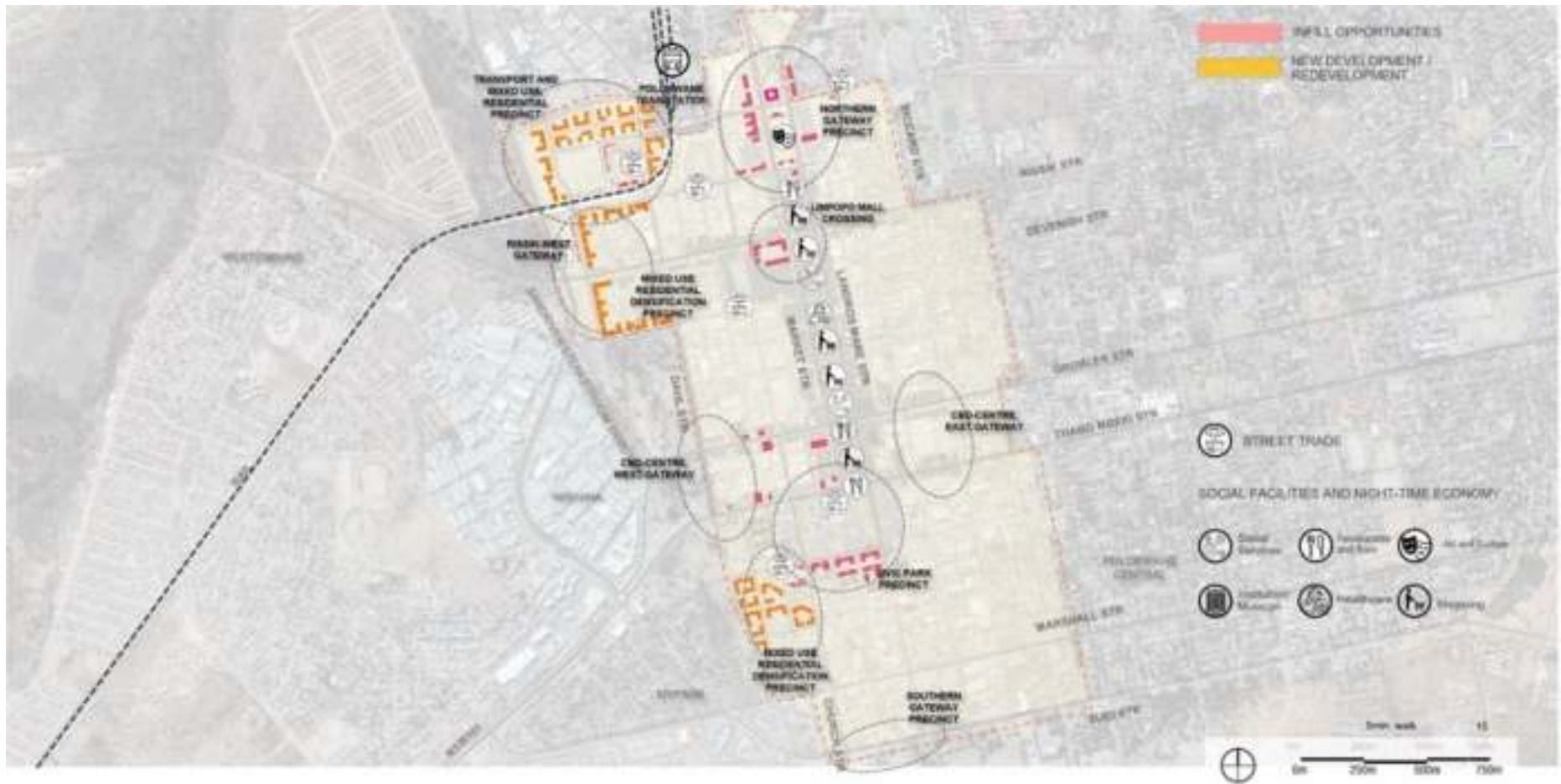


Diagram 47: Land Use Activities

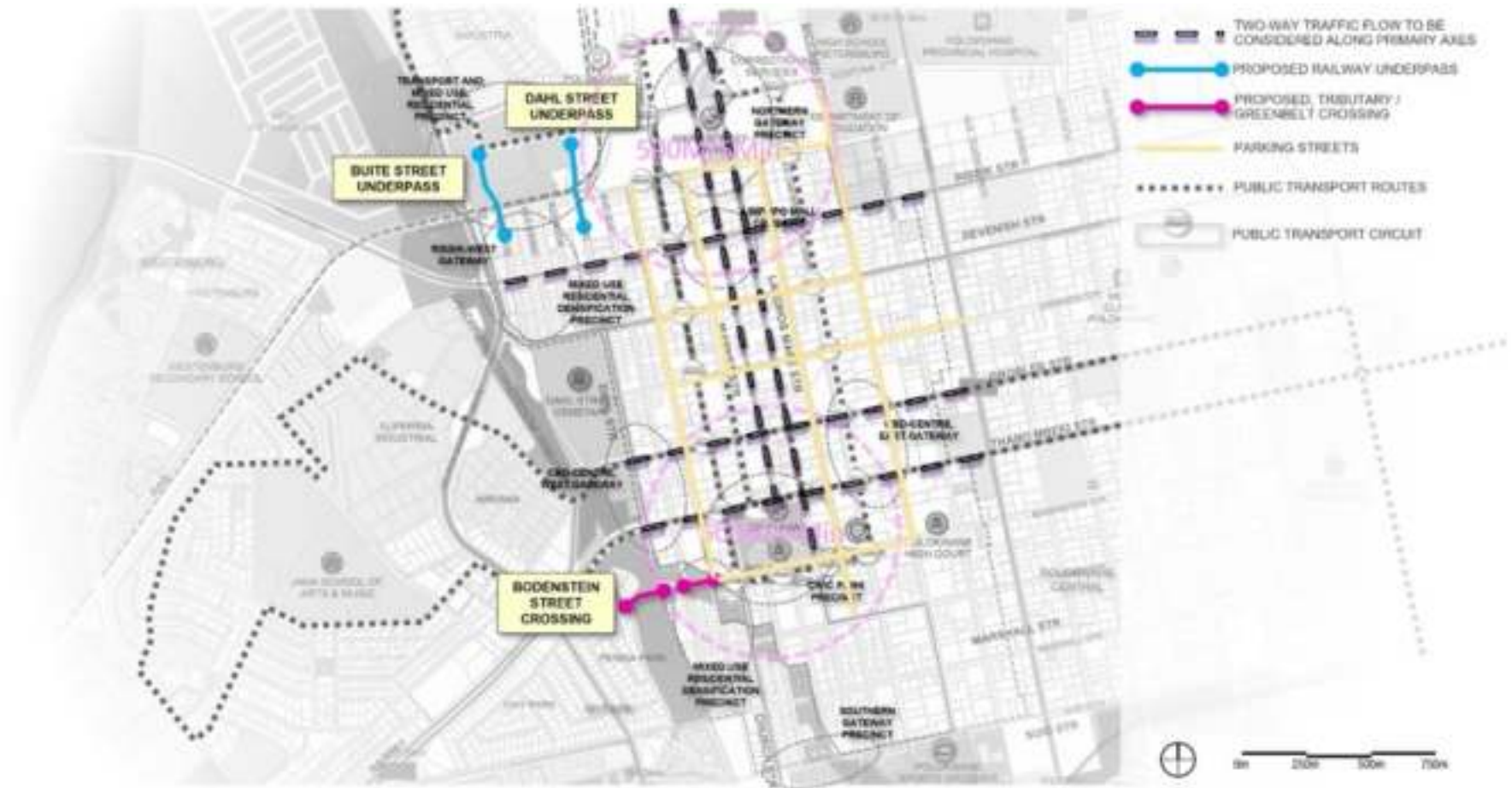


Diagram 48: Primary Movement Axes and Proposed Connections



Diagram 49: Public Transport Circuit and BRT System

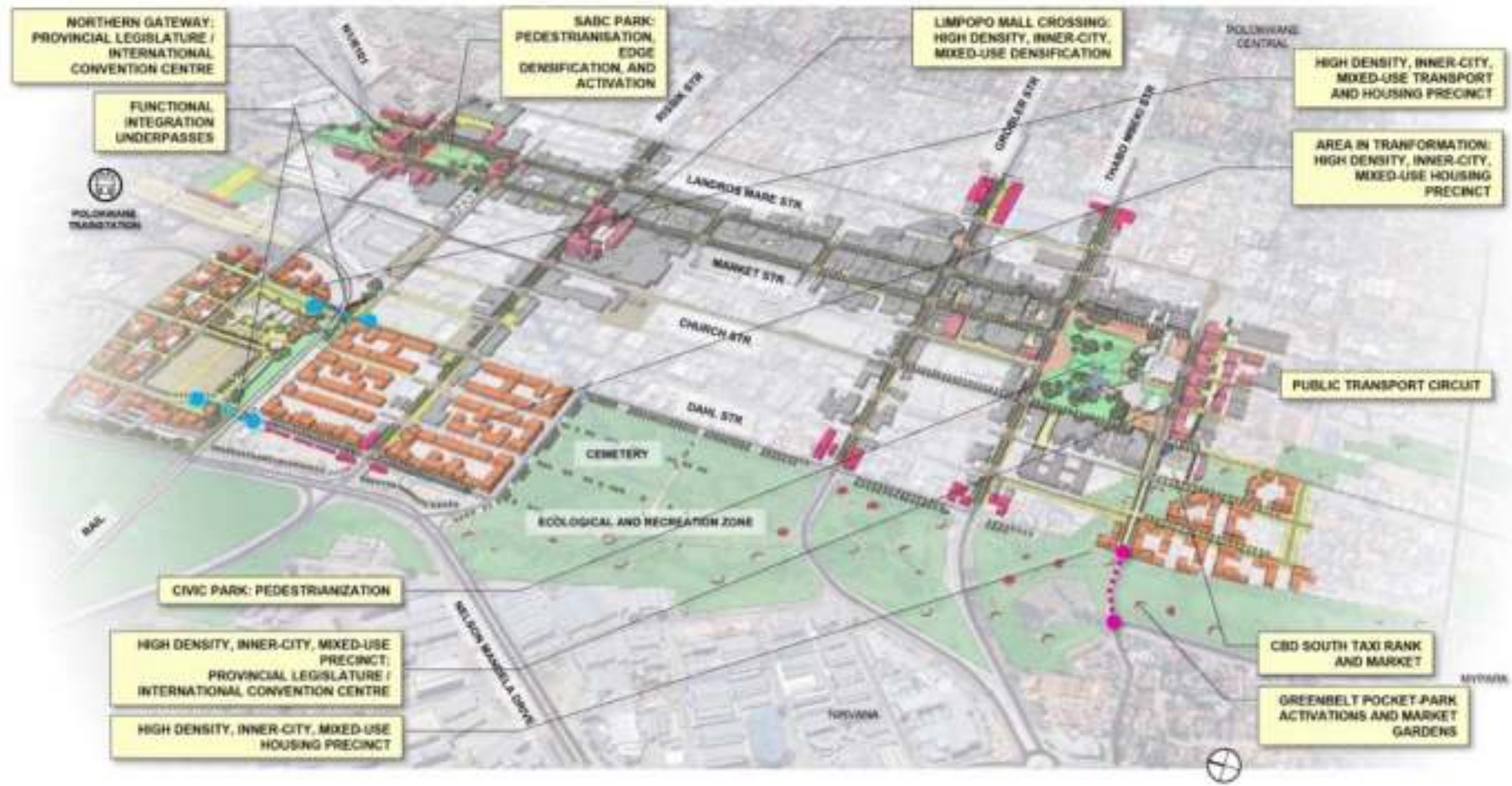


Diagram 50: Structuring Elements: Birds Eye View

11.2 CITY WIDE PROJECTS FOR CONSIDERATION IN THE CBD

Refer to:

Diagram 51: City-Wide Projects in Planning

Diagram 52: Project Sites for CBD-Location Reconsideration

There are many projects currently in their planning phase. Some already have sites selected outside of the CBD. These project sites should be reconsidered for the impact that they could have on the inner city. What if the 5000 units of housing planned for Seshego are located inside the CBD, close to work and civic amenities, while reducing transport costs for those 5000 households?

What if Limpopo Provincial Legislature is located within the CBD of Polokwane, potentially as a tower at the Northern Gateway, or within the green spaces of the Sports Precinct – reinforcing the southern gateway of the CBD, from the N1?

This section presents a diagram of projects planned for the metropolitan area. It also suggests which of these could benefit the overall operation of Polokwane City, by being relocated to the CBD.

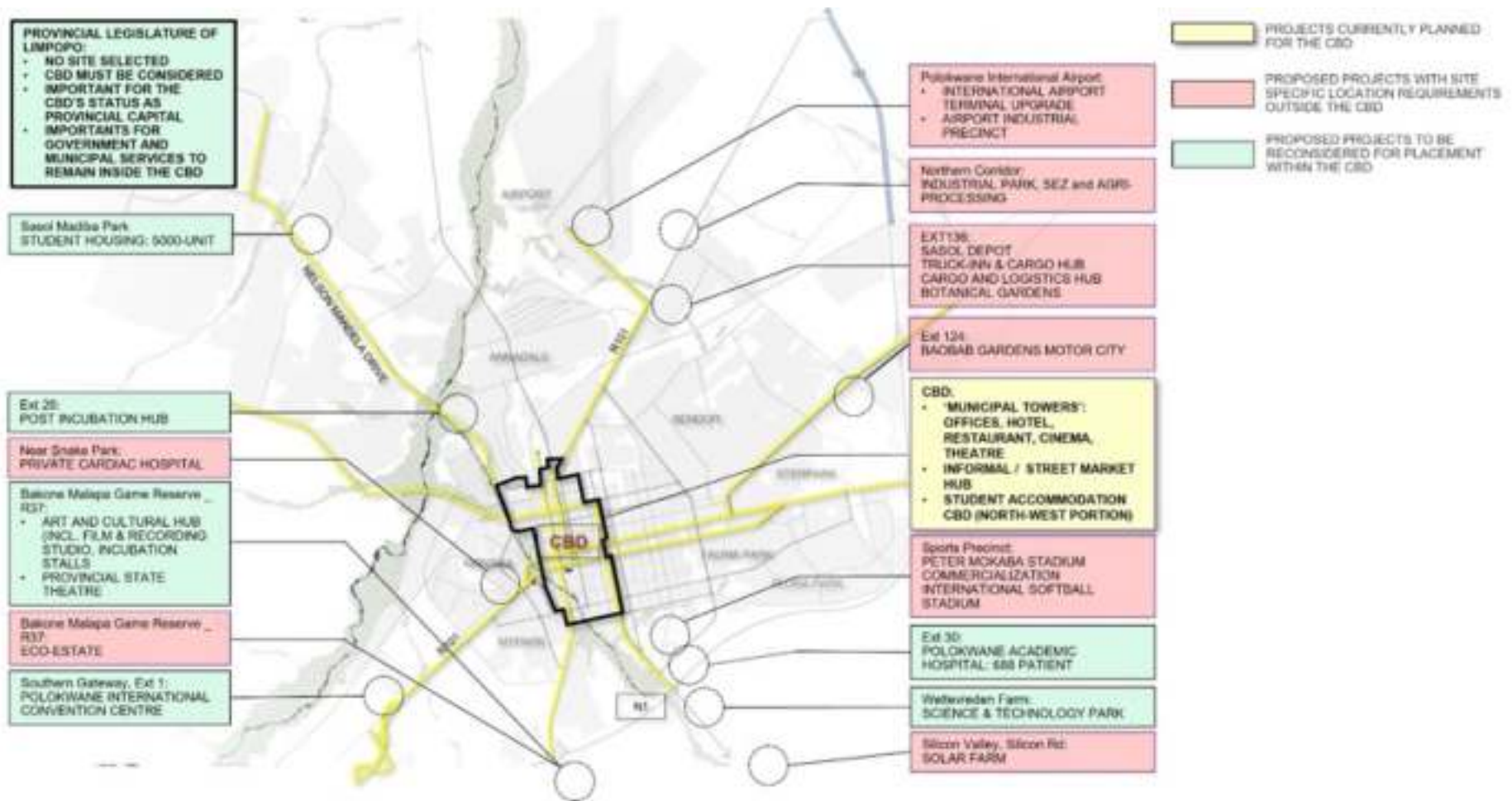


Diagram 51: City-Wide Projects in Planning

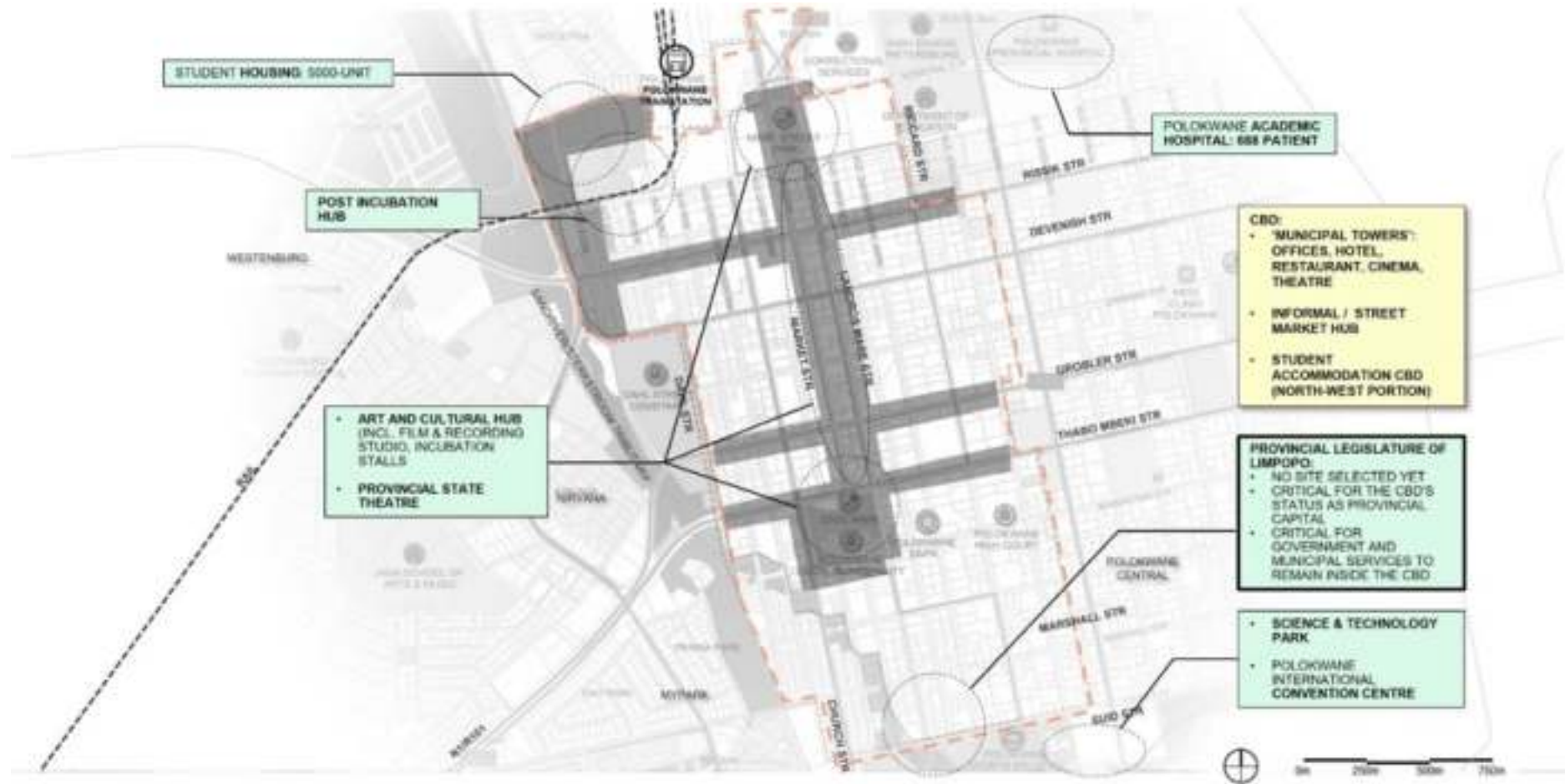


Diagram 52: Project Sites for CBD-Location Reconsideration

11.3 LAND USE PLAN AND LAND USE BUDGET

11.3.1 OVERVIEW

This framework represents the types of land uses and activities that should be supported within the CBD. While much of the proposed land use pattern exists, there are instances where the precinct plan proposes changes of use and introduces new activities (where possible and applicable) in line with the CBD's requirements and underlying development guidelines.

Land use activities consolidate and enhance existing activity patterns. New activities aim to enhance or complement the existing use of space through increased dwelling density and change of land use.

11.3.2 LAND USE SCHEME (2022) INTENT, EXISTING ZONING RIGHTS, AND BUILDING FLOOR AREA

Refer to:

Diagram 53: Density Guidelines

Diagram 54: Zoning Summary by General Category

Diagram 55: Existing Zoning and Built Form Land Use Activity Pattern

Diagram 56: Current Zoning Development Rights (top), and Building Activities and their Intensity

Diagram 57: Promoted Development Areas Identified for Investment

Diagram 58: Anticipated Increase in Building Heights

Diagram 59: Precincts and Development Intent

Table 3: Existing Zoning

Table 4: Indicative Building Land Use and Floor Area

Table 5: Land use and Development Intent per Precinct

The current Draft Land Use Scheme (LUS) endorses residential densities ranging from 60 to 85 dwelling units per hectare, which can be considered modest for the urban core. In such a central area, a shift towards vertical, mixed-use development is typically encouraged, allowing for taller structures and higher density living.

Under the LUS, designated areas for Business possess generous Floor Area Ratios (FARs) of 5, with permitted building heights of up to 5 stories and potential residential densities spanning 60 to 140 dwelling units per hectare.

An analysis of the existing zoning, as illustrated in the accompanying diagram, coupled with the subsequent schedule, reveals a development potential of approximately 5.4 million square meters of floor space. Compared to the existing built-up area, which currently utilizes 1.568 million square meters, there is a substantial capacity for expansion. An estimated 3.915 million square meters of additional floor space could be realized through methods such as augmenting building footprints, constructing additional floors, and identifying infill opportunities within the CBD. Moreover, the LUS indicates the possibility of achieving up to 5.5 million square meters of floor space through the process of obtaining consent.

The 'Zoning Summary by General Category' diagram elucidates that the majority of the latent 3.915 million square meters of floor area falls within the Business zone. This classification is notably versatile, accommodating a wide array of uses. It facilitates the redevelopment of sites without the necessity for rezoning or submitting township applications, thus streamlining the development process.

Promoted Development

The framework targets investment toward transformative urban initiatives and interventions. These include:

1. More intensive development along the main activity spines / primary axes,
2. Consolidation of civic, cultural, and mixed-use facilities framing the urban parks,
3. Gateway nodes where buildings become more intensive, and sites become landmarks to the CBD,
4. Redevelopment of existing areas in transition into higher density development,
5. Identification of sites for new residential and mixed-use development,

6. Enhancing the quality of the CBD greenbelt comprising the wetland – promoting development to frame these spaces.

Proposed land use budget

Much of the CBD identified is zoned Business 1, 2, and 3 which creates flexibility in terms of height, FARs, and uses. This allows for additional floor area within the CBD which the masterplan supports.

There is latent floor area identified in the areas of focused investment available on vacant sites. Additional storeys can be added in the CBD allowing **1.2million m²** of floor area, permitting retail, offices, and residential.

Intensifying residential development in the CBD is proposed – higher than what the existing buildings generate and what is supported by the LUS (maximum 85du/ha). Additional households will create a 24-hour use (or night-time economy), maximising the use of existing infrastructure, services, and facilities. The new households enhance the investment viability of the CBD.

8659 dwelling units can be generated from this floor area. The additional population added to the precinct would be **20 768** (at a ratio of 2.4 people per household). The average net dwelling unit density is still fairly low, between 40 du/ha in the areas identified for intensification.

The increase in density and floor area would put pressure on the existing physical and social infrastructure, and provision of these services such as engineering services, schools, parks, etc. would need to be carefully considered when accommodating this change.

Proposed increase in heights and floor area

The building heights in the CBD are predominantly 1 storey with some taller buildings occurring intermittently. An increase in building height (between 4 – 6 storeys) is proposed along the main axes, the civic and cultural node,

and the CBD green belt. Taller buildings will be supported in all these focus areas, and in other areas that have Business zoning in the CBD, if it aligns with the character of the neighbourhood.

Precincts and development Intent

The CBD has been broken down into smaller management areas with development intent to enhance the existing use of these precincts.



Diagram 53: Density Guidelines

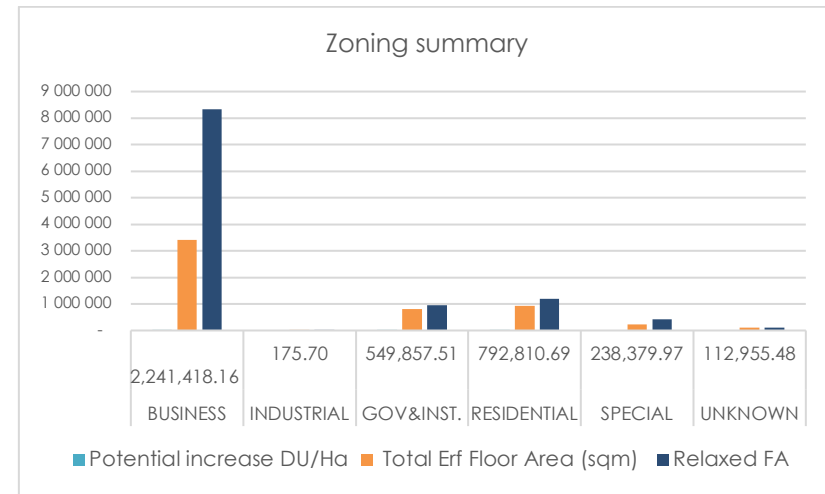


Diagram 54: Zoning Summary by General Category

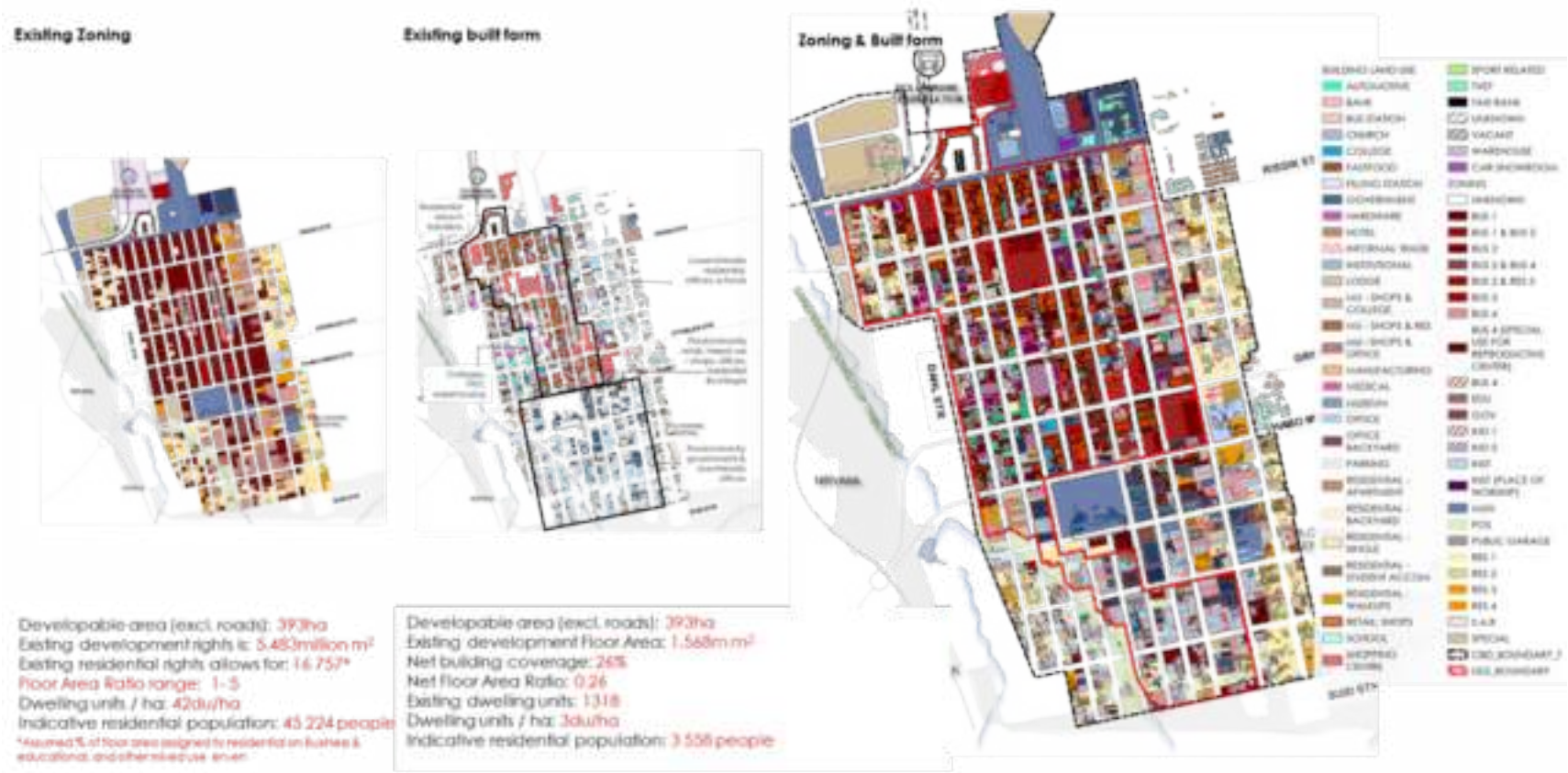


Diagram 55: Existing Zoning and Built Form Land Use Activity Pattern

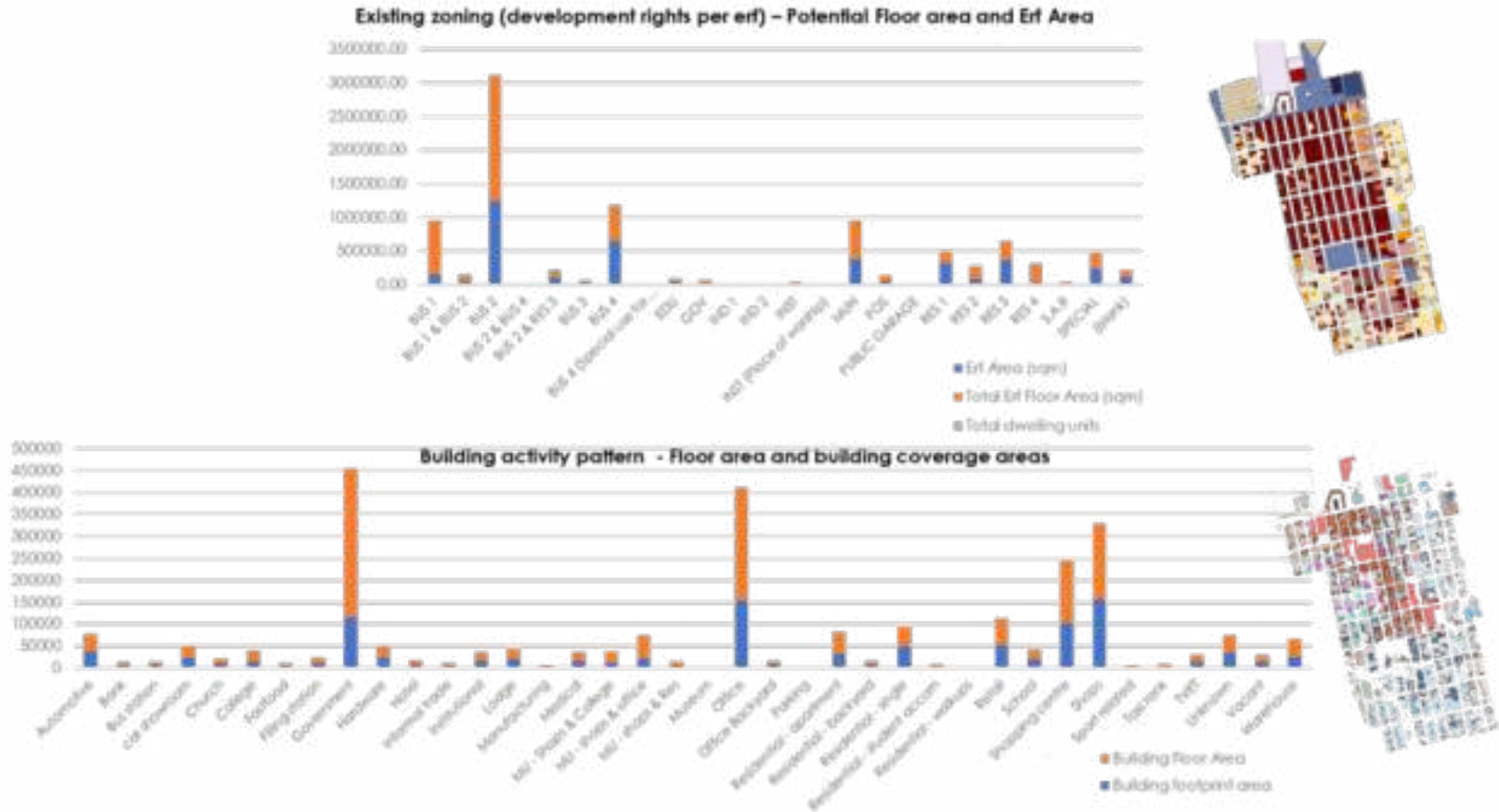


Diagram 56: Current Zoning Development Rights (top), and Building Activities and their Intensity (bottom)

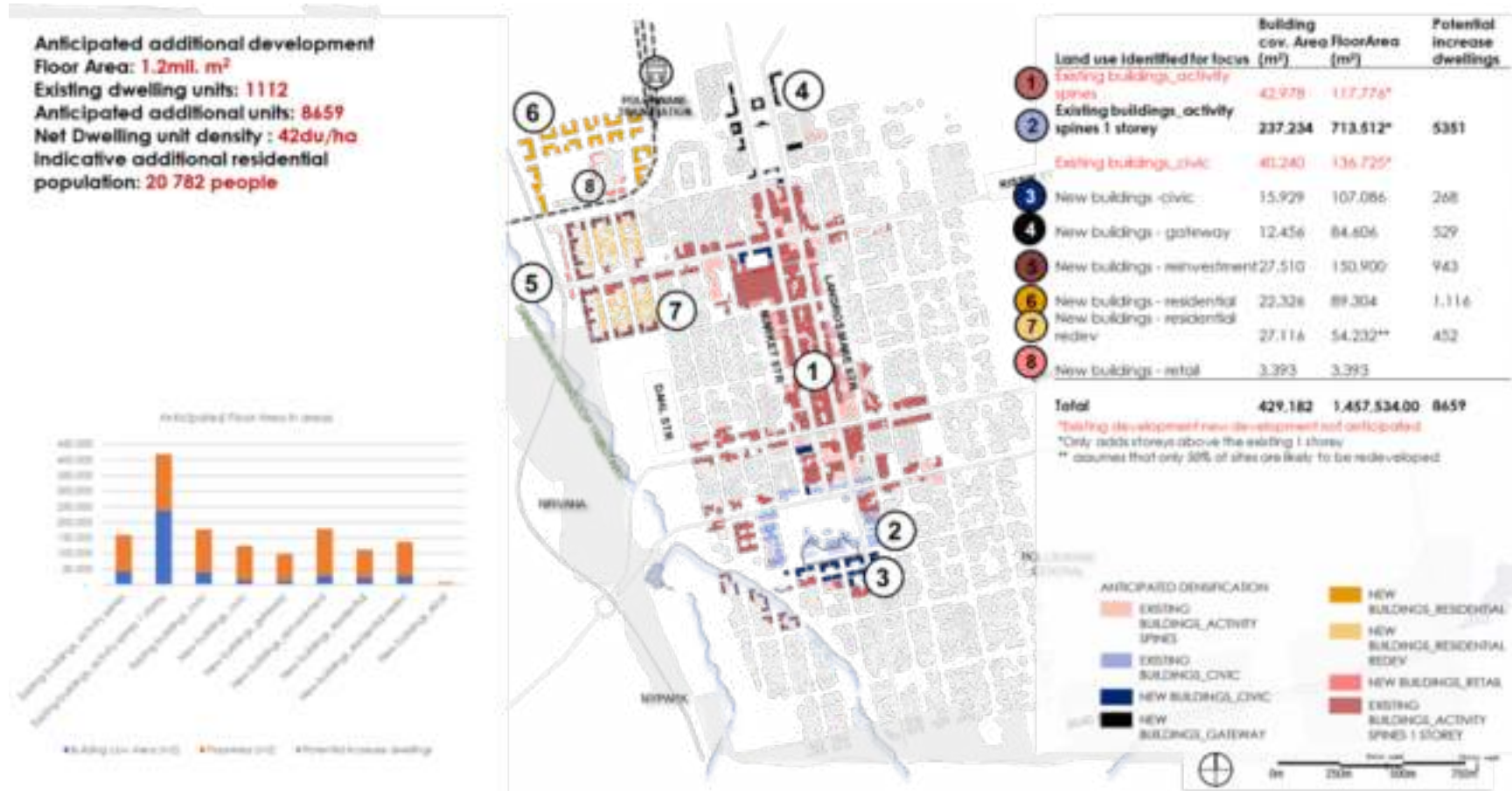


Diagram 57: Promoted Development Areas Identified for Investment



Diagram 58: Anticipated Increase in Building Heights

Table 3: Existing Zoning

Zoning	Erf Area (sqm)	Coverage	Max FAR	Relaxation (FAR)	Permitted height	DU/ha	Potential increase DU/Ha	Total Erf Floor Area (sqm)	Relaxed FA	Total dwelling units	Dw. units /ha resultant
BUS 1	158,277.27	90%	5.0	5.0	5	74	74.00	791,386.36	791,386.36	1187	75
BUS 1 & BUS 2	48,998.56	85%	2.0	5.0	5	74	74.00	97,997.12	244,992.79	367	75
BUS 2	1,241,316.66	85%	1.5	5.0	5	30	64.00	1,861,974.99	6,206,583.30	6982	56
BUS 2 & BUS 4	1,344.91	60%	1.8	1.8	5	30	140.00	2,420.84	2,420.84	9	68
BUS 2 & RES 3	108,482.93	60%	1.0	1.2	5	30	140.00	108,482.93	130,179.51	542	50
BUS 3	32,820.79	60%	1.0	1.2	3	30	64.00	32,820.79	39,384.95	123	38
BUS 4	648,749.06	60%	0.8	1.4	5	65	140.00	518,999.25	908,248.69	1946	30
BUS 4 (Special use for reproductive center)	1,427.98	60%	0.8	1.4	5	65	140.00	1,142.38	1,999.17	4	30
BUSINESS								3,415,224.66	8,325,195.62		
IND 1	175.70	85%	1.2	2.0	5			210.84	351.40		

Zoning	Erf Area (sqm)	Cover-age	Max FAR	Relaxati on (FAR)	Permitte d height	DU/h a	Potentia l increase DU/Ha	Total Erf Floor Area (sqm)	Relaxed FA	Total dwelling units	Dw. units /ha resultant
IND 2	0.00	85%	1.2	2.0	5			0.00	0.00		
INDUSTRIAL								210.84	351.41		
EDU	42,403.42	60%	1.0	1.2	5	Student accommodation supported		42,403.42	50,884.10	106	25
GOV	27,307.56	80%	1.5	2.0	5	1/erf	74.00	40,961.35	54,615.13		
INST	21,095.91	60%	1.0	1.2	5	1/erf	44.00	21,095.91	25,315.09		
INST (Place of worship)	1,423.68	60%	1.0	1.2	5	1/erf	45.00	1,423.68	1,708.42		
MUN	382,219.89	85%	1.5	2.0	5	44	44.00	573,329.84	764,439.78	860	
POS PUBLIC GARAGE	48,536.44	60%	0.6	0.8	3			94,966.36	38,829.15		
	6,424.26	60%	0.6	0.8	3			3,854.55	5,139.40		
S.A.R	20,446.35	NA	0.6	0.8				20,446.35	16,357.08		
GOV&INST.								798,481.46	957,288.16		
RES 1	320,392.95	70%	1.0	1.2	3	12	30.00	158,277.27	384,471.54	384	
RES 2	82,046.91	70%	1.2	1.4		31	44.00	189,932.73	114,865.67	254	

Zoning	Erf Area (sqm)	Cover-age	Max FAR	Relaxati on (FAR)	Permitte d height	DU/h a	Potentia l increase DU/Ha	Total Erf Floor Area (sqm)	Relaxed FA	Total dwelling units	Dw. units /ha resultant
RES 3	366,076.44	70%	1.8	1.8		45	64.00	284,899.09	658,937.58	1647	
RES 4	24,294.39	85%	1.8	1.8		64	200.00	284,899.09	43,729.90	2343	
RESIDENTIAL								918,008.18			
SPECIAL	238,379.97	subject to SDP	1.0	1.8				238,379.97		429,083.94	
UNKNOWN	112,955.48	NA	1.0	1.0				112,955.48		112,955.48	
TOTAL	3,935,597.50							5,483,260.58		11,026,879.29	16,757
	393.56										45,244
											population

Table 4: Indicative Building Land Use and Floor Area

Land use	Area m²	Floor Area (m²)	No. Units
Automotive	36956	39711	
Bank	4844	7097	
Bus station	7231	7231	
Car showroom	22711	27035	
Church	10443	11907	
College	14419	25946	
Fastfood	5495	6162	
Filling station	11247	11247	
Government	115468	339472	
Hardware	23232	26727	
Hotel	7280	9906	
Informal trade	5070	5070	
Institutional	15815	20768	
Lodge	19573	26198	
Manufacturing	3081	3081	
Medical	15976	20317	
MU - Shops & College	11455	26389	
MU - shops & office	21939	52120	
MU - shops & Res	5157	8918	56
Museum	793	793	
Office	153115	258400	
Office Backyard	8382	8382	
Parking	748	748	
Residential - apartment	32340	50811	635
Residential - backyard	7644	7644	255
Residential - single	47812	47889	239
Residential - student accom	3117	3697	123
Residential - walkups	564	758	9
Retail	51971	61051	
School	19274	21530	
Shopping centre	102982	142740	
Shops	156351	171928	
Sport related	2304	2304	
Taxi rank	4214	4214	
TVET	14950	15179	
Unknown	34191	39141	
Vacant	13799	14157	
Warehouse	24679	42275	
Total	1,036,622.00	1,568,943.00	1318



Diagram 59: Precincts and Development Intent

Table 5: Land use and Development Intent per Precinct

REF ON PLAN	LAND USE CATEGORY	INTENT	PREFERRED LAND USES	BUILDING GUIDELINES
A	Maximum Intensity, Mixed-Use Civic and Cultural: Government, Municipal, Retail, Offices, Residential, & Night-time Economy	<ul style="list-style-type: none"> ▪ Sites have been identified as development opportunities for civic functions (Public, and Institutional buildings), to consolidate into a government precinct. ▪ All buildings abutting the green public squares/gardens must be designed to have a relationship with these spaces. ▪ The parking needs for existing users are to be reviewed to meet the needs of existing and new development, basement and on street parking promoted. ▪ Active building edges at ground floor (shops, restaurants, offices, services) to be accessed through pedestrian access. ▪ Pedestrian oriented environments, investment in the public areas through public environment upgrades, with a focus on public transport and non-motorised transport, rather than private mobility. 	<p>Municipal and Government Purposes, Institutions, Law Courts, Fire Stations, Clinics, Hospitals, Medical Consulting Rooms, Other Places of Education, Police Stations, Libraries, Art Galleries, Museums, Social Halls, Old Age Homes, Social and Public Services.</p> <p>Other business uses would be permitted if they align with the character of the Civic Precinct. Such as Business Purposes, Shops, Offices, Hotels, Restaurants, Conference Centres, Medical Consulting Rooms.</p> <p>Dwelling Units (greater than 85 du / ha)</p>	<ul style="list-style-type: none"> ▪ FARs: 2 & up 6 ▪ Heights: 6 storeys, with towers and taller buildings permitted ▪ 90-100% coverage
B	High Intensity Mixed Use Primary Axes: Retail, Offices, Residential, & Night-time Economy	<ul style="list-style-type: none"> ▪ Retention and enhancement of vertically integrated mixed-use development, with retail at ground floor and residential or offices above. Where land uses change, pedestrian access and activity at ground floor is promoted, with passive surveillance at all levels of the building. Where possible, the introduction of pedestrian-oriented streets and augmentation of existing pedestrian malls, with existing on-street parking retained and promoted in designated areas. Ground floor land use within the defined core area prioritised for retail activity. ▪ Direct pedestrian access to building, from the street ▪ Basement and on street parking promoted as opposed to surface parking areas. ▪ High-density residential is promoted by revitalisation and reconstruction to add additional heights with investment in a park (green belt), piazzas, roof gardens, small-scale park. 	<p>Business Purposes, Shops, Offices, Hotels, Restaurants, Conference Centres, Medical Consulting Rooms.</p> <p>Densities of 85 du / ha and higher is recommended, with due regard for compatibility with the amenity of the surrounding area and the interface with abutting properties.</p>	<ul style="list-style-type: none"> ▪ FARs: 2 & up 6 ▪ Heights: 6 storeys, with towers and taller buildings permitted ▪ 90-100% coverage
C	High/Maximum Intensity, Mixed	<ul style="list-style-type: none"> ▪ Identified sites strategically located at major road intersections and forms a gateway into the CBD. 		<ul style="list-style-type: none"> ▪ FARs: 2 & up 6

REF ON PLAN	LAND USE CATEGORY	INTENT	PREFERRED LAND USES	BUILDING GUIDELINES
	Use Gateway Node	<ul style="list-style-type: none"> ▪ Buildings & sites require special architectural accentuation to celebrate the entrance of CBD, through landscaping, towering buildings, parks, signage, landmarks. ▪ Underutilised areas in the road reserve that exist, should be reviewed for a landscaping features and sidewalks should be upgraded into sidewalks with street trees as part of the gateway into the CBD. 		<ul style="list-style-type: none"> ▪ Heights:6 storeys, with towers and taller buildings promoted ▪ 90-100% coverage
D	Key Commercial Core - The Indian Centre Transport, Retail and Trade Area	<ul style="list-style-type: none"> ▪ A busy trade area: management of informal trade, taxis, safety, and security becomes key. ▪ Improved pedestrian access and pedestrian links to other parts of the CBD, and a quality public environment becomes important to enhance this. 		<ul style="list-style-type: none"> ▪ FARs: 2 & up to 6 ▪ Heights 2-4 ▪ towers and taller buildings permitted. ▪ 90-100% coverage
E	High Intensity, Mixed Use Public Transport and Residential Precinct	<ul style="list-style-type: none"> ▪ Potential new development of Medium- to high-density to be designed to have a public interface with the street, neighbouring shops, and public open spaces (i.e. visually permeable fencing on street frontages, balconies / porticoes facing onto the open spaces and the street, and active edges, where possible, at ground floor) and with improved public environment through landscaping and introduction of street trees, with improved sidewalks and a maintained open space system, parallel to the railway line and bus station. ▪ Retail should be confined to pockets of the development as vertically integrated mixed use, introducing local shops (retaining the main services to the CBD Core) at ground floor and residential and offices above. ▪ E.2 existing low density with an intent for densification through redevelopment and infill to have a public interface with the street, neighbouring shops, and public open spaces, ▪ Parking should be contained to smaller pockets with on street parking supported. 	<p>Dwelling units. Transport, Formalised markets, local shops.</p> <p>Densities of 85 du / ha and higher is recommended, with due regard for compatibility with the amenity of the surrounding area and the interface with abutting properties.</p>	<ul style="list-style-type: none"> ▪ FARs: 2 ▪ Heights:4-6-8 storeys, ▪ 70% coverage ▪ 100% coverage for basement parking

REF ON PLAN	LAND USE CATEGORY	INTENT	PREFERRED LAND USES	BUILDING GUIDELINES
F1 & F2	Mixed Use Residential Precinct: Res1 to Res3 Transitioning, Mixed Use Residential	<ul style="list-style-type: none"> ▪ Existing low density with an intent for densification to Medium-to high-density to be designed to have a public interface with the street, neighbouring shops, and public open spaces (i.e. visually permeable fencing on street frontages, balconies / porticoes facing onto the open spaces and the street, and active edges, where possible, at ground floor) and with improved public environment through landscaping and introduction of street trees, with improved sidewalks and a maintained open space system ▪ Parking should be contained to smaller pockets with on street parking supported 		<ul style="list-style-type: none"> ▪ FARs: 2 ▪ Heights:4-6-8 storeys, ▪ 70% coverage ▪ 100% coverage for basement parking
G	CBD Support Zone East: Mixed Use Light Industry, Workshops, and Automotive	<ul style="list-style-type: none"> ▪ Existing light industrial and businesses to be enhanced. Activities include warehouses, distribution centres, light industries, service industries and associated offices. ▪ Investment in the public areas to attract investors and improve the quality of employees in the area. 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ FARs: 2 ▪ Heights:4-6-8 storeys, ▪ 70% coverage
H	CBD Support Zone West: Offices, Institutional & Residential	<ul style="list-style-type: none"> ▪ To ensure that the existing office and residential areas are retained with improved public environment through landscaping of streets, improved sidewalks and managed and maintained open space system, supported by local community facilities. 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ FARs: 2 ▪ Heights:2-4 storeys, ▪ 70% coverage ▪ 100% coverage for basement parking
I	CBD Transition Zone	<ul style="list-style-type: none"> ▪ The existing residential buildings are beginning to respond with boutique offerings such as restaurants, art galleries, home industry, coffee shops, offices etc. With the trees of stature, easy access from regional roads, buildings showing architectural merit (potential heritage buildings), and proximity to the CBD and surrounds, it is recommended. ▪ Very strict control over building coverage, parking / loading, is required as part of the SDP. 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪

REF ON PLAN	LAND USE CATEGORY	INTENT	PREFERRED LAND USES	BUILDING GUIDELINES
		<ul style="list-style-type: none"> ▪ Guest houses, boutique hotels, crèches, orphanages, retirement homes, frail care, small home enterprises (art galleries, home industry, restaurants, coffee shops, etc.), would be permitted on merit with the local authority, and very strict control over number of people employed, building coverage, parking / loading, noise, smells, hazards, and unsightly development. 		
J	CBD Greenbelt	<ul style="list-style-type: none"> ▪ The wetlands can serve as a clean, safe, public amenity. ▪ Focus on biodiversity and protection of the waterbodies but introducing managed public areas to attract users to the park as a public amenity. ▪ Introduction of pedestrian links along the greenbelt that link to public installations that are to be located along it (between 5-10minute walk apart). Installations can include children's playgrounds, restaurants, sport fields, popup markets, market gardens etc. ▪ Introduction of a pedestrian network that links the green belt to key areas in the CBD such as the civic precinct, residential neighbourhoods etc. ▪ Increased heights (2-4 storeys), along the open space network buildings to be designed to have a public interface with the green belt (i.e., visually permeable fencing on street frontages and open space, balconies / porticoes facing onto the open spaces and active edges at ground floor) 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪

11.4 SOCIAL SERVICES PROVISION

Refer to:

Table 7: CSIR Requirements for Social Facilities and Public Amenities

Diagram 60: Social Facilities and Public Amenities

The **CBD** serves a regional function offering social and civic amenities, including municipal and government services.

The main government facilities clustered around Polokwane City Square move toward the southern boundary of the CBD. It is recommended that clustering of additional public facilities occur in these same areas to facilitate catalytic functions in the CBD.

Existing facilities located in the CBD include:

- The Civic Centre,
- The Polokwane City Library,
- Several clinics in and around the CBD,
- Several churches and masjids,
- Municipal and government services clustering near Polokwane City Square, include:
 - The Municipality,
 - Department of Public Works,
 - CoGHSTA,
 - Department of Economic Development,
 - The Magistrate’s Court,
 - The Department of Transport,
- Several colleges and TVETs - Boston City Campus, Brooklyn, Capricorn TVET, Heartlines TVET Rosetec, Jeppe, Gauteng City College; MGM Designers and Projects College,
- Tshwane University of Technology & UNISA,
- Several pre-primary schools and creches (2 in the CBD),
- Police stations,
- Several taxi facilities,
- Parks and wetlands.

Within 2km:

- High schools (east of the CBD) Hoërskool Pietersberg, Hoërskool Noordeland, Capricorn High,
- Numerous primary schools (to the east) Noordskool, Laerskool Pietersburg Noord; Pietersburg Laerskool, Laerskool Pietersburg Oos),
- Polokwane Fire Station (emergency management services) north of the CBD,
- Polokwane Regional Hospital (0.5km) serving as regional function,
- Pieter Mokaba Stadium and regional sports facility.

The Pieter Mokaba Stadium could be utilised as a centralised area for all sports and recreational activities, making it possible for more urban schools to cater for an increase in residential areas.

Table 6: Social Services and Community Facilities Requirements

Facilities	Average Threshold (Population)	Acceptable Travel Distance (KM)	Condition
Regional Sports Stadium	200 000–300 000	15 km	Access to public transport is essential. Clustered with other sports facilities.

Source: Council for Scientific and Industrial Research, 2012

The CSIR has created a guideline for social facilities in any region or precinct. These requirements are estimated according to the number of residents in the area. They should be considered in terms of space requirements and multifunctional facilities.

The CBD has a mixed-use and vertically integrated core. With transition happening, and increasing conversions of existing buildings into residential accommodation, residential numbers quoted are a guide only.

From the CSIR standards it is found that with the increase in population there will be a need for creches, sports facilities, local and community parks, and children's playgrounds. Moreover, most of the schools are located on the east of the CBD and additional urban schools with shared sport facilities should be introduced.

As the CBD becomes ever-increasingly residential, social facilities should be incorporated in an incremental manner. This is true for education facilities, open space, and all corresponding social facilities such as schools, crèches, clinics, libraries, etc.

It is also important to retain government facilities in the Polokwane core that enhance the CBD. Any new government requirements, such as the Limpopo Provincial Legislature, should find a home in the CBD.



Diagram 60: Social Facilities and Public Amenities

Table 7: CSIR Requirements for Social Facilities and Public Amenities

CSIR FACILITY GUIDELINES		POLOKWANE CBD (WITHIN 2.5km Radius)					RECOMMENDED PROXIMITY	TOTAL AREA FOR FACILITIES REQUIRED	AREA PROVIDED IN NTSHONGWENI
CATEGORY	STANDARD	MINIMUM REQUIRED	EXISTING	ADDITIONAL REQUIRED	AREA ALLOCATION	ha			
		1 facility / no. of people	No.	No.	No.	ha			
								ha	ha
EDUCATION	Crèche	2,500	9.68	4	6	0.00		Education	Education
	Primary School	7,000	3.46	6	-3	-7.12		-17.04	Note- possibly within precinct & shared with adjoining areas.
	Secondary School	12,500	1.94	4	-2	-9.91			
	College	30,000	0.81	1	0	0.00			
	University	Area related to nature of facility							
HEALTH	Clinic	10,000	2.42	4	-2	-0.32		5km target	Other
	Hospice (HIV)	Area related to nature of facility		1	-1				
	Day Hospital	50,000	0.48	1	-1	-0.52			
	Primary Health Clinic (24 000 - 70 000)	45,000	0.54	5	-4	-8.92			
SAFETY	Police Station (60 000 -100 000)	80,000	0.30	2	-2	-1.36	8km metro	within 5km	
	Prison	Area related to nature of facility		1					
	Fire Station (60 000 - 100 000)	80,000		1					
COMMUNITY	Local Library (20 000 - 70 000)	45,000	0.54	1	0	-0.09	8-10km	-12.20	
	Post Office (10 000 - 20 000)	10,000	2.42	2	0	0.08			
	250 seats Minor Community Hall	10,000	2.42	1	1	0.28			
	500 seats Intermediate Community Hall	22,000	1.10	1	0	0.05			
	1,000 seats Major Community Hall	60,000	0.40	2	0	0.00			
	Old Age Home (variable)	10,000	2.42	2	0	0.34			
	Cemetery	Area related to nature of facility							
CIVIC	Home affairs - small office	40,000	0.00	1	-1	-0.20			
RELIGION	Church	5,000	4.84	10	-5	-1.55			
PARKS	Local/ Neighbourhood Park (range 3000-15000)	6,000	4.03	1	3	0.91		TOTAL PARKS & SPORT	TOTAL PARKS & SPORT
	Community Park	60,000	0.40	0	0.4	2.02			
	District Park (60 000 - 100 000)	100,000	0.24	2	-1.8	2.02			
	Public Open Space	10,000	2.42	5	-3	-0.26			
	Children's Playgrounds (Variable)	1,000	24.19	0	24	2.42			
SPORT	Sports Field	1,000	24.19	0	24	14.51		41.77	
	Grassed field (2 football fields equivalent) with 500-seat stand	3,000	8.06	0	8	20.16	5km		
	Cricket oval	60,000	0.00	0	0	0.00	10km		
	Sports Complex (grouping of fields) Athletics/Cricket Stadium (grassed field and athletics track and stand – 3 000+ seats)	60,000	0.40	1	-0.6	0.00			
								12.54	
BUSINESS	Corner Shop	2,000							
	Community Shop	10,000							
	Regional Shopping Centre	500,000							
	CBD	1,000,000							

12 DEVELOPMENT MANUAL

12.1 INTRODUCTION

The Development Manual plays a critical role in the successful execution of the Polokwane CBD Urban Development Framework by providing a comprehensive and structured guide for various stakeholders involved in the city's urban revitalization.

This Development Manual, **while not exhaustive in its details**, articulates a high-level vision to augment the Polokwane CBD. It aims to leverage the existing attributes of the city, fostering economic activity in retail, commercial, cultural, and creative, education and research, street trade, real estate, food and culinary, hospitality, and tourism. It also emphasizes investment in the built environment and seeks to celebrate and integrate the rich cultural tapestry of Polokwane, making it community inclusive.

12.1.1 THE PURPOSE OF THE DEVELOPMENT MANUAL

The Development Manual serves as a vital tool to ensure quality, consistency, and coherence in the treatment of key urban elements within the CBD of Polokwane.

Rather than being an exhaustive guide, **this manual serves as a precursor**, laying the groundwork for a more detailed plan, which would require a separate exercise. It envisions informing a subsequent development initiative dedicated to elevating the CBD's public environment, including streets and open spaces, refining the built form, and enriching the overall sense of place and identity. The ultimate objective is to **create an urban space that not only attracts investments but also stands as a vibrant, culturally celebratory, and community-inclusive hub for Polokwane's residents and visitors alike.**

12.1.2 THE PRIMARY OBJECTIVES OF THE DEVELOPMENT MANUAL

These objectives are strategically designed to shape urban development within the CBD, focusing on key aspects that contribute to the city's overall well-being and prosperity.

Quality Enhancement: By providing detailed standards and guidelines, the manual aims to elevate the quality of urban development projects within the city. This includes infrastructure, public spaces, buildings, and streetscape elements, ensuring that they meet high aesthetic and functional standards.

Safety and Welcoming Environment: One of the central goals is to create a safer and more welcoming urban environment. This involves measures to enhance pedestrian safety, improve lighting, and reduce crime. It also includes creating inviting public spaces and amenities for residents and visitors.

Direct and Attract Investment: By establishing a clear and well-documented framework for development, the manual serves as a magnet for strategic investment in the designated areas of the CBD. It offers a roadmap for investors and developers, making it easier for them to identify and contribute to projects that align with the city's revitalization goals.

12.1.3 POLOKWANE CBD: RELATIONSHIP OF STATUTORY REGULATIONS WITH DESIGN CONTROLS

Government Levels and Powers:

- **National, Provincial, and Local Spheres:**
 - Each possesses specific legislative competences, with municipalities having executive authority for town planning schemes and by-laws.

Statutory Regulations:

- **Polokwane Urban Development Framework & Development Manual:**
 - Provides guidelines for urban development within the Polokwane CBD, offering local-level guidance to CBD landowners.
 - Emphasizes development aspects such as parks, open spaces, and streets, which would be developed by different municipal bodies, and the manual intends to guide this.
 - A design review panel should be set up to ensure that all projects, by public and private sectors, within the CBD are in alignment with the UDF and Manual, but also focused on the CBD, working in tandem with development control.
- **Provincial Policy (SDF) and National Policy:**
 - Guides Polokwane's development on a strategic level, and the PUDF incorporates principles to make it achievable on a local level, aligning with the Integrated Development Plan (IDP) and other overarching frameworks.
- **Land Use Scheme:**
 - Governs land use and zoning in Polokwane, designating specific areas for different purposes, with the Development Manual aligning with this.
- **Area-Based Plans/District Plans:**
 - Offers detailed management tools for specific areas, ensuring alignment with higher-level strategies.
- **National Building Regulations and Building Standards Act (No. 103 of 1977):**
 - Forms the foundational basis for construction and development compliance in South Africa.

Compliance and Control:

- **Design Control Manual:**
 - Ensures compliance with statutory regulations, encompassing planning law, environmental law, road traffic law, and building controls.
- **Development Controls:**
 - Manipulate parameters for building layouts and architectural typology, aligning with the overarching vision, legislation, and various policies at different government levels.

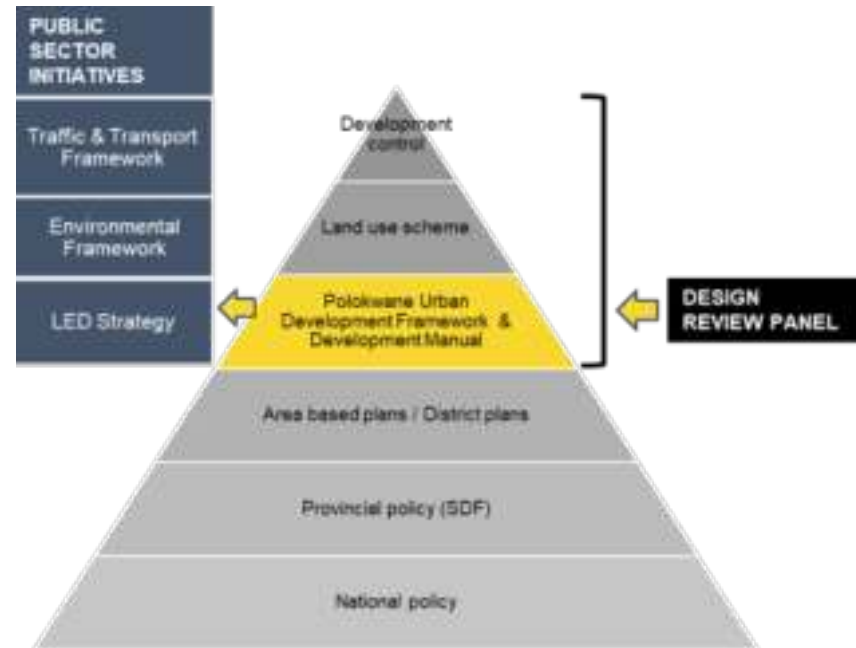


Diagram 61: Navigating Spatial Planning Hierarchy and the Dynamic Interplay Between UDF and Design Review Panel in Statutory Regulation and Design Controls

12.1.4 THE USERS OF THE DEVELOPMENT

The Development Manual serves as a guide for both city officials, community, and private sector stakeholders in shaping the future of Polokwane's CBD. For city officials and urban planners, it **acts as a decision-making tool, ensuring strategic alignment with the CBD Urban Development Framework**. Simultaneously, it provides clear and transparent guidance for private sector actors, fostering collaboration and coordination between stakeholders to achieve a cohesive and mutually beneficial transformation of the city centre.

- **CITY OFFICIALS:** The manual serves as a decision-making tool for city officials and urban planners. It provides them with a comprehensive reference that outlines key strategic interventions and development standards. City officials can use it to guide their decisions, policies, and approvals related to urban development projects. This helps ensure that all initiatives are aligned with the overarching CBD Urban Development Framework and that they contribute to the city's vision for revitalization.
- **PRIVATE SECTOR:** The manual is equally important for private sector stakeholders, including property developers, investors, and entrepreneurs. It provides them with clear and transparent guidance on how to contribute to the city's revitalization efforts. Private sector actors can use the manual to understand the city's expectations, standards, and objectives for urban development. This, in turn, assists them in making informed investment decisions and designing projects that fit seamlessly within the city's broader urban development strategy.

The Development Manual fosters collaboration and coordination between different stakeholders and investment, **ensuring that the CBD's transformation is cohesive, well-planned, and mutually beneficial for the city, its investors, and its users**. It aligns the aspirations of the public and private sectors toward the shared goal of always improving Polokwane's CBD.

12.1.5 SECTION OVERVIEW

The Development Manual provides a comprehensive approach to enhance Polokwane's CBD, covering various aspects.

- **Public Open Spaces and Parks: Enhancing the Urban Fabric** Navigating the blueprint for CBD augmentation, this section addresses the development of hard and soft open spaces, incorporation of parklets and pocket parks, preservation of natural open spaces like the Sandriver/Sterkloop Tributary Ecological Corridor, and the establishment of pathways for connectivity and desire lines.
- **Streets: Crafting Accessible and Aesthetic Pathways** Serving as a guide for creating accessible and aesthetically pleasing thoroughfares, this section delves into enhancing urban mobility. From Complete Streets design to Tactical Street Reform, primary pedestrian routes, and the transformation of service lanes and alleys, it introduces the integration of public ablutions and pissoirs to address practical needs in busy pedestrian intersections and main activity areas.
- **Buildings and Site Development: Shaping Urban Edges** Concentrating on the development of buildings and sites to activate street edges, this segment emphasizes active ground-floor uses, encourages densification, and promotes mixed-use development. Envisioning a 24/7 CBD environment, it outlines the enforcement of signage and advertising by-laws for visual coherence.
- **Legibility and Identity: Preserving Heritage and Enhancing Aesthetics** Underscoring the significance of heritage preservation and the enforcement of by-laws for signage consistency, this section introduces a unified street furniture template for enhancing the CBD's public environment. It strategically places traders' shelters and integrates CBD gateways, landmarks, and public art installations to enrich the cultural and artistic identity of the CBD.

In essence, the Development Manual takes a structured approach to ensure that urban development in Polokwane's CBD aligns with the city's heritage, meets high aesthetic standards, and fosters a vibrant and inclusive community across open spaces, streets, buildings, and identity.

12.2 PUBLIC OPEN SPACES AND PARKS: ENHANCING THE URBAN FABRIC

Refer to:

Diagram 62: Examples of Active Areas and Bookends to Parks

Diagram 63: Designing Inviting Urban Spaces with Thoughtful Buildings and Landscaping

Background:

Public spaces' quality is tied to design and interaction with surrounding buildings. Examples include town gardens, town squares, piazzas, small market spaces, and green pocket parks that transform into communal hubs. Streets, constituting three-quarters of all public space, play a vital role in community life. This section focuses on public spaces, aiming to design neighbourhoods instilling safety and reducing crime, aligning with Secured by Design recommendations.

Challenges in the CBD:

The Polokwane CBD faces challenges like limited gathering areas, lack of green open spaces, encroachment on the 'Civic Park,' and streets lacking space for pedestrian movement and street life cafes. The park is fenced off, impeding community accessibility and use.



Diagram 62: Examples of Active Areas and Bookends to Parks



Diagram 63: Designing Inviting Urban Spaces with Thoughtful Buildings and Landscaping

12.2.1 HARD AND SOFT OPEN SPACES

Refer to:

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Identifying Open Spaces:

- *Main Pedestrian/Vehicular Routes:* Identifying open spaces along main routes crucial for community interaction and overall walkability.
- *Smaller Squares and Piazzas:* Integrating smaller squares enriches the urban experience, fostering community within the built environment.
- *Sanitary Lanes and Upgraded Routes:* Overlooked sanitary lanes offer opportunities for vibrant, usable spaces contributing to CBD revitalization.
- *Parklets, Pocket Parks:* Identifying wide streets for pocket parks, pedestrian malls, and parklets for popup shops and restaurants.

Guidelines for Open Space:

- *Scale and Proportion:* Appropriately sizing new public areas informed by suitable precedents aligns with functional community needs.
- *Enclosure:* Public squares sized relative to surrounding buildings create a harmonious urban environment.
- *New/Existing Development with Active Edges:* Integrating active edges along open spaces fosters social interaction and dynamic urban experiences. In cases bookends and areas for street trade can be introduced to enhance activity in the park (see Diagram 62)
- *Public Uses and Events:* Squares should function as focal points for various activities, accommodating events to foster community engagement.
- *Traffic and Frontage:* Squares accommodating local traffic need a continuous building line on at least two sides for harmonious integration.

- *Green Infrastructure:* Street trees, verges, swales, and rain gardens contribute to greenery.
- *On-Street Parking:* On-street parking accommodated either permanently or when not used for other activities.
- *Main Park Entrances:* Clearly marked entrances with informative signage enhance accessibility and community engagement.

Desire Lines and Pathways: Parks and open spaces located along main movement routes ensure ease of access and reinforce functionality.

Safety and Security:

- *Access and Movement:* Well-defined routes for convenient yet secure movement.
- *Safe Routes:* Straight, well-lit, and well-maintained routes providing a sense of security.
- *Structure:* Places structured to avoid conflicting uses.
- *Lighting:* Appropriate, non-intrusive lighting levels.
- *Private Space:* Clear separation between public and private spaces.
- *Surveillance:* Public spaces designed for visibility and oversight.
- *Ownership:* Fostering a sense of ownership and community responsibility.
- *Physical Protection:* Incorporation of well-designed security features.
- *Activity:* Human activity levels appropriate for enhanced safety.
- *Management and Maintenance:* Designing with management and maintenance in mind to deter present and future crime.

Coherent Integration:

Approaching the development and enhancement of open spaces with a coherent and interconnected mindset ensures a seamless network of public spaces in Polokwane CBD. Linking main pedestrian routes, smaller squares, and piazzas, along with upgraded sanitary lanes, contributes to a harmonious and accessible urban environment, maximizing the potential to enrich the community's well-being and vibrancy.



Diagram 64: Hard and Soft Open Spaces

12.2.2 POCKET PARKS AND PARKLETS

Refer to:

Diagram 65: Pocket Parks

Diagram 66: Parklets

Diagram 67: Parklets

Parklets, designed for narrow or congested sidewalks, and pocket parks both contribute to expanded seating capacity, public space, and an enhanced urban experience. Property owners can acquire these amenities through city agreements, often involving the replacement of parking spaces. These initiatives can initially be implemented on a temporary basis, allowing for testing and evaluation. Subsequently, they can evolve into more formalized structures over time. Administered through partnerships with businesses or residents, they can also be managed by the city in the absence of local partners.

Benefits and Considerations: Parklets and pocket parks enhance community assets, increase foot traffic, create a green oasis, and may boost revenues for adjacent businesses.

Guidelines for Pocket Parks:

- Locate pocket parks strategically to maximize accessibility and community engagement.
- Ensure a minimum area of 80 square meters for an effective pocket park.
- Integrate greenery and seating for a comfortable and inviting atmosphere.
- Create clear pathways to enhance connectivity within the pocket park.
- Consider the use of lighting for safety and extended usability.
- Ensure that buildings are designed to frame these spaces.

Guidelines for Parklets:

- Ensure visibility by buffering parklets with a wheel stop 1.2 meters away.

- Incorporate vertical elements like flexible posts and planting for traffic visibility.
- Maintain a minimum width of 1.8 meters, accommodating one or more parking spaces.
- Facilitate drainage to prevent stormwater runoff issues.
- Create a flush transition at the sidewalk and kerb for easy access.
- Avoid corners and place parklets at least one parking space (3 meters) away from intersections.
- Make parklets theft-resistant, considering day and night surveillance.
- Include seating, either integrated into the design or with movable tables and chairs.

Given the need to consider topography, drainage, and safety in pocket parks, prioritizing safety using slip-resistant surfaces, adherence to load-bearing standards, incorporation of stability-focused guardrail design, and mindful utility access ensures that parklets and pocket parks become adaptable, safe, and compatible with their environment.



Diagram 65: Pocket Parks



Compact Urban Retreats:
 Convert on-street spaces into inviting parklets.
 Provide a compact oasis for relaxation and socializing.

Community-Centric Design:
 Engage local communities in parklet design decisions.
 Customize features to reflect the character of the neighborhood.

Versatile Layouts:
 Design adaptable layouts for diverse uses.
 Accommodate seating, greenery, and bike racks in a space-efficient manner.

Low-Impact Landscaping:
 Opt for low-maintenance plants and permeable surfaces.
 Emphasize sustainability with eco-friendly design elements.

Artistic Expression:
 Incorporate public art and murals into the parklet design.
 Enhance the visual appeal with unique and creative elements.

Accessible and Inviting:
 Ensure universal access for people of all abilities.
 Create an inviting atmosphere to encourage pedestrian engagement.

POTENTIAL:

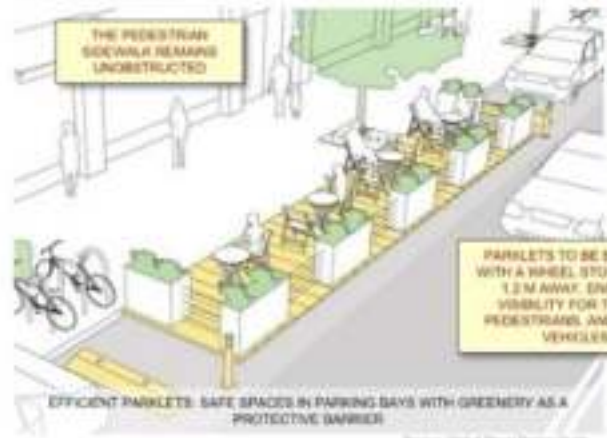


Diagram 66: Parklets

Maximize Public Realm Enhancement: Utilize parklets to extend vibrant social, dining, and leisure spaces into the urban environment, particularly benefiting areas with limited open space.

Support Local Businesses and Economy: Leverage parklets as opportunities for small businesses, especially eateries, to expand their patron capacity, thereby boosting local economies and enhancing street-level vibrancy.

Innovative Use of Urban Space: View parklets as creative solutions to add value to underused street spaces, contributing to dynamic on-street activities and supporting the night-time economy.

Balanced Integration with Parking Needs: Strategically design parklets to coexist with existing parking infrastructure, ensuring they complement rather than compete with parking availability, maintaining a balance that serves both parklet users and vehicle owners.

Prioritize Safety in Design and Location: Emphasize the safety of parklet by selecting locations with lower traffic volumes, speeds and incorporating robust protective measures, always making these spaces well and secure.

Adaptive Planning and Community Involvement: Engage in adaptive planning processes for parklet implementation, involve community and business input to identify optimal locations and designs that reflect local needs and preferences.

Considerate and Flexible Implementation: Approach parklet development with flexibility, allowing for the testing of concepts at various locations and the adaptation of design based on user feedback and observed impact.



USE VERTICAL SAFETY BARRIER ELEMENTS (POSTS, PLANTERS, BOLLARDS) TO SECURE PARKLET AND ENHANCE VISIBILITY TO TRAFFIC.

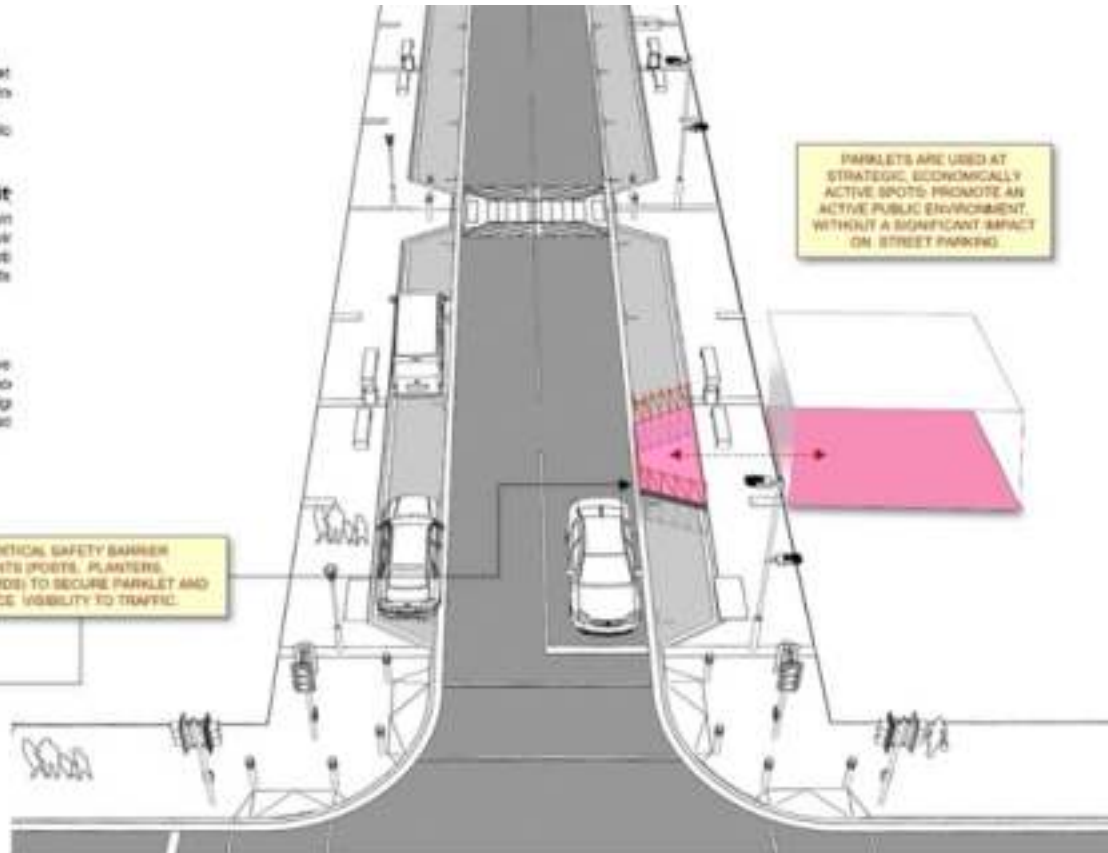


Diagram 67: Parklets

12.2.3 NATURAL OPEN SPACE: SANDRIVER / STERKLOOP TRIBUTARY ECOLOGICAL CORRIDOR

Refer to:

Diagram 68: Enhancing the natural open

Diagram 69: Park Design for Comfort and Security

Background / Issues:

The Sandriver tributary ecological corridor, despite its current state as a neglected area, holds potential for the Polokwane CBD. Recognizing its value for biodiversity, recreational opportunities, sustainable urban agriculture, and safety is essential. Presently perceived as unsafe, polluted, and visually unappealing, transforming this corridor aligns with broader sustainable urban development goals, presenting an opportunity for positive change within the CBD.

Guidelines:

- **Biological Footprint Improvement:**
 - Preserve and reintroduce natural vegetation to improve the biological footprint of the corridor.
 - Prioritize the preservation of water quality by implementing sustainable water management practices.
 - Mitigate erosion and pollution through effective stormwater management.
 - Introduce cleaning mechanisms to filter stormwater before entering the corridor, enhancing overall ecological well-being.
- **Activating the Corridor: Safety, Ownership, Higher Density, and Security:**
 - Introduce higher-density residential developments, office parks, or educational facilities to frame the spaces, fostering a sense of enclosure and security.
 - Incorporate well-placed windows, streets, gardens, and doors to enhance safety and create a sense of ownership.
 - Increase corridor activity by strategically placing small nodes near entrances and along trail routes, serving as recreational focal points.

- Foster a sense of safety through design elements that enhance visibility and community engagement.
- Implement efficient lighting management to ensure a well-lit, safe park environment during all hours.
- Install CCTV cameras strategically to enhance surveillance and deter illicit activities.
- Employ dedicated security guards to provide a visible and proactive security presence.
- Foster a clean and safe park atmosphere through regular maintenance and monitoring.

- **Trail and Pedestrian Development:**

- Introduce well-designed trails for walking and cycling to promote physical activity and enhance overall attractiveness.
- Enhance connectivity with quality pedestrian routes between the CBD and the ecological corridor.
- Ensure seamless integration with other identified parks, creating a cohesive and accessible urban green network.

The following principles should be considered:

- **Ecological Corridor Revitalization:**
 - Restore and enhance natural ecological corridors.
 - Prioritize native vegetation to support local biodiversity.
- **Water Sensitive Urban Design (WSUD) and Sustainable Urban Drainage (SUD):**
 - Promote and implement interdisciplinary co-operation of Water Management (Engineering), Urban Design and Landscape Planning
 - Recognise all water streams in the total water cycle as valuable resources.
 - Approach urban planning and design in a manner that integrates the management of the total water cycle into the urban development process.
 - Combine natural processes with landscaping (design) and engineering (technical) solutions.
 - Aim to protect the quality and quantity of water to better protect local environment and watercourses (also including flood control).
- **Watershed Conservation:**
 - Implement watershed management strategies for water quality.

- Preserve and restore natural drainage patterns.
- **Community Food Gardens:**
 - Integrate economic opportunities through community food gardens.
 - Promote local agriculture and enhance food security.
- **River Cleaning Initiatives:**
 - Launch river cleaning programs to mitigate pollution.
 - Engage communities in regular clean-up efforts.
- **Eco-Tourism Development:**
 - Capitalize on the natural environment for eco-tourism.
 - Create opportunities for guided nature walks and educational experiences.
- **Sustainable Economic Practices:**
 - Encourage sustainable practices such as agroforestry.
 - Develop economic opportunities that align with environmental conservation.

Implementing these guidelines will not only preserve the ecological integrity of the Sandriver / Sterkloop tributary ecological corridor but also contribute to its transformation into a vibrant, safe, and well-utilized urban asset, aligning with sustainable urban development principles.



Diagram 68: Enhancing the natural open space

12.2.4 PATHWAYS OF CONNECTIVITY: OPEN SPACE NETWORK AND DESIRE LINES

Refer to Diagram 70: Pathways of Connectivity: Open Space Network and Desire Lines

Guidelines for walkways and desire lines:

- **Direct Connectivity and Desire Line Integration:**
 - Establish direct pathways for efficient and convenient routes connecting open spaces and key attractors and installations.
 - Align pathways with desire lines, optimizing the experience for pedestrians and cyclists based on natural route preferences.
- **Green Network Emphasis:**
 - Prioritize green spaces along walkways to create a pleasant and inviting atmosphere while enhancing connections between open areas and rest points. Support these green spaces with landmarks such as monuments, green oases, and special buildings.
- **Universal Accessibility:**
 - Ensure pathways are universally accessible, accommodating the needs of all pedestrians and cyclists with ramps and smooth surfaces.
- **Safety, Legibility and Security Focus:**
 - Incorporate safety measures, including well-lit pathways, clear sightlines, and strategic landscaping, to enhance security and overall user safety.



Diagram 70: Pathways of Connectivity: Open Space Network and Desire Lines

12.3 STREETS

Refer to:

Diagram 71: Complete Streets

Diagram 72: Revamping Landros Mare & Market: 3 Lanes, Wider Sidewalks & Social Zones

Diagram 73: Street Transformation

Diagram 74: Street Transformations – Parking Zone

Diagram 75: Street Transformations – Urban Furniture and Universal Accessibility

Diagram 76: Street Transformations - Landscaping

Diagram 72

Issues in CBD Streets:

Challenges in the Polokwane CBD streets include the prioritization of vehicular movement, narrow and poorly maintained sidewalks, limited spill out areas, informal trading crowding spaces, the absence of landscaping or street trees, and unclear zones for pedestrian movement, cycling, and public transport stops. Although streets are often perceived mainly for vehicular traffic, there is an opportunity to transform them into dynamic urban spaces supporting sustainability, public health, economy, and culture.

Benefits and Considerations:

Well-designed streets serve as essential community assets, fostering a sense of place, connectivity, and urban vibrancy. They enhance the pedestrian experience, contributing to increased foot traffic, promoting economic activities, and potentially boosting revenues for adjacent businesses. Quality streets become integral components of a thriving urban environment, supporting community well-being, social interaction, and a sustainable urban ecosystem.

Design Principles for Streets:

Guiding street development is a set of design principles that prioritize safety, accessibility, inclusivity, complete streets accommodating various transportation modes, integration with land use planning, green infrastructure, flexibility, traffic management, community engagement, maintenance, and continuous evaluation for long-term sustainability.

COMPLETE STREETS

Guidelines for Complete Streets include:

- **Multimodal Design:**
 - Prioritize designs that accommodate various modes of transportation, including pedestrians, cyclists, and public transit, ensuring safe and accessible mobility for everyone.
- **Safety Measures:**
 - Implement safety features such as well-marked crosswalks, bike lanes, and pedestrian crossings to minimize the risk of accidents and enhance overall street safety.
- **Universal Accessibility:**
 - Ensure streets are universally accessible with features like ramps, sidewalks, and curb cuts, promoting ease of movement for individuals of all abilities.
- **Landscaping and Amenities:**
 - Integrate greenery, trees, and street furniture to enhance the aesthetic appeal of streets, providing comfortable and inviting spaces for community interaction.

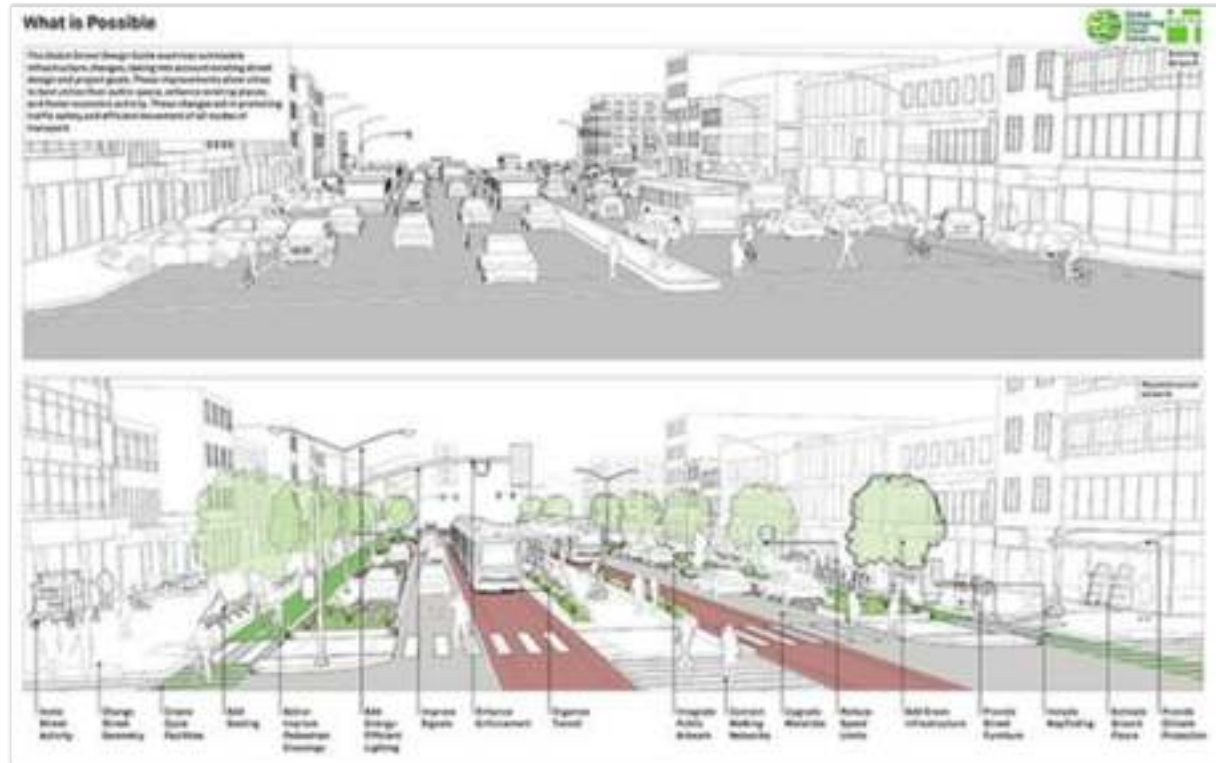


Diagram 71: Complete Streets

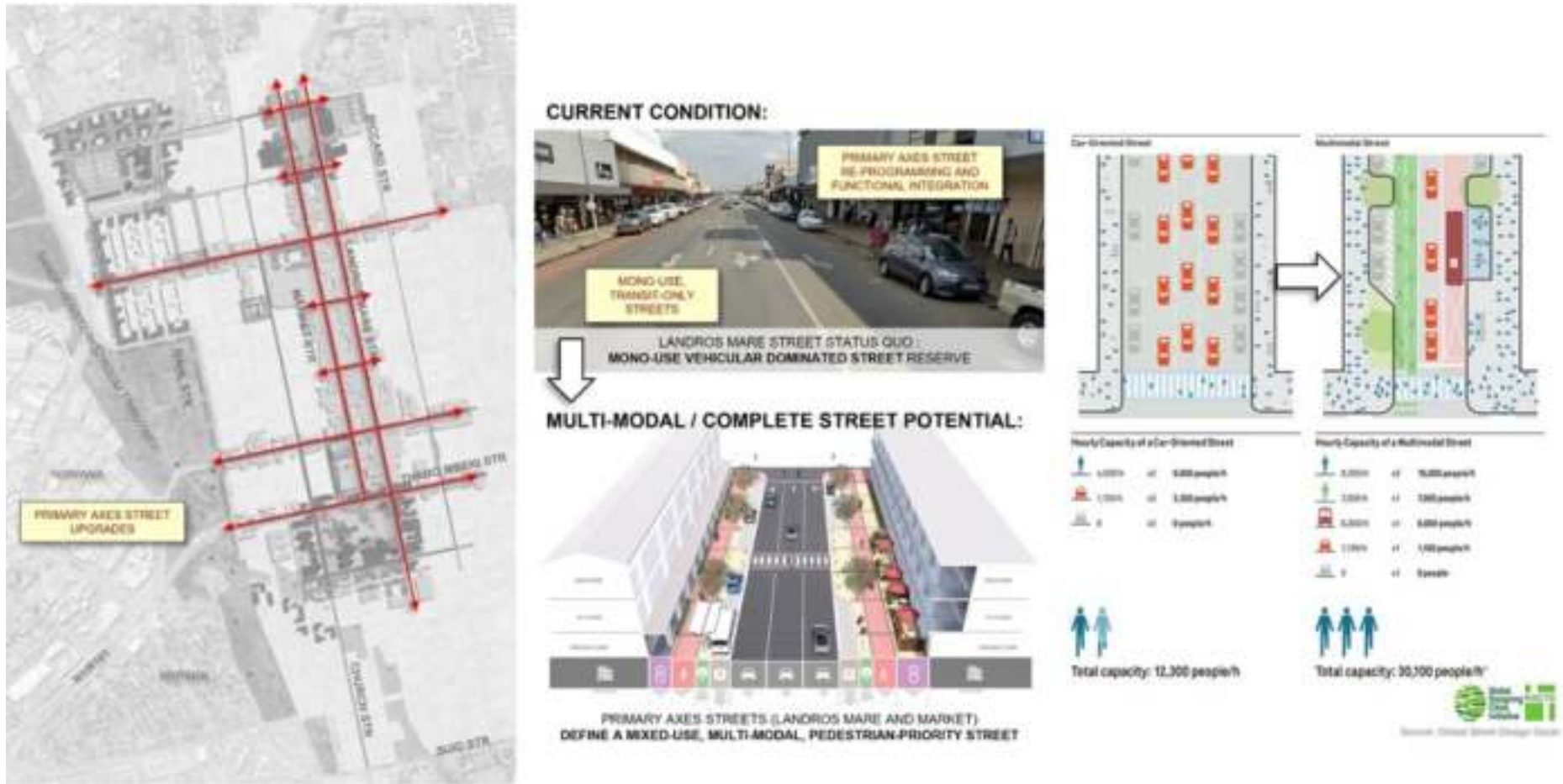


Diagram 72: Revamping Landros Mare & Market: 3 Lanes, Wider Sidewalks & Social Zones

Phase 1: Existing Street Condition Assessment

- Evaluate current shortcomings: Wide, mono-functional car-traffic lanes, long and limited pedestrian crossings, narrow sidewalks, lack of urban furniture, insufficient lighting, absence of cycle lanes, and no trees/planting.

Phase 2: Consultation and Planning

- Prior to any implementation and physical changes are made to an intersection, it is crucial to conduct thorough consultation and detailed planning. This stage involves gathering input from stakeholders, including residents, businesses, and government agencies, to understand their concerns, needs, and ideas for improvement. Detailed planning will inform the implementation phase.

Phase 3: Construction and implementation

- Based on the condition assessment, stakeholder consultation and the detailed planning phases, specific interventions are to be constructed and implemented.

Phase 4: Monitoring and Evaluation

- Ongoing monitoring and evaluation of the interventions will inform the best design interventions, usability and future projects.

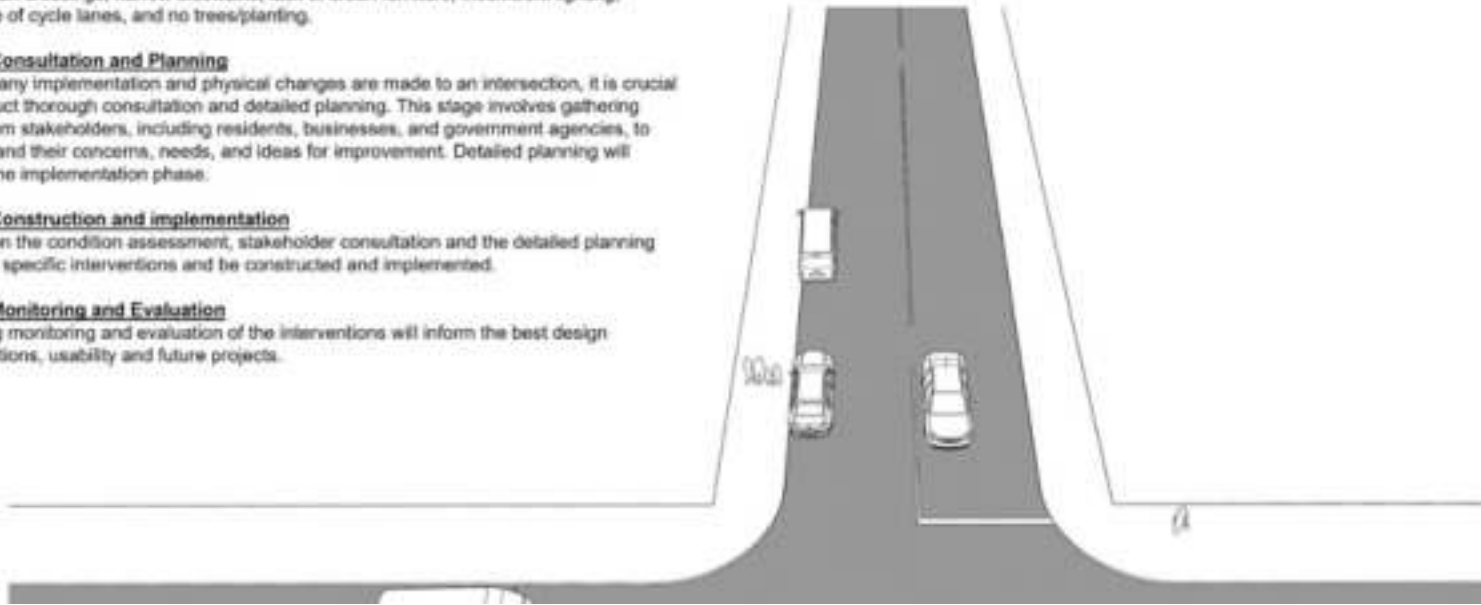


Diagram 73: Street Transformation

Phase 1: Existing Street Condition Assessment

- Evaluate current shortcomings: Wide, mono-functional car traffic lanes, long and limited pedestrian crossings, narrow sidewalks, lack of urban furniture, insufficient lighting, absence of cycle lanes, and no trees/planting.

Phase 2: Consultation and Planning

- Prior to any implementation and physical changes are made to any lane redesign, it is crucial to conduct thorough consultation and detailed planning. This stage involves gathering input from stakeholders, including residents, businesses, and government agencies, to understand their concerns, needs, and ideas for improvement. Detailed planning will inform the implementation phase.

Phase 3: Lane Redesign

- Reduce lane width to slow down traffic.
- Reclaim space at intersections for expanded pedestrian zones.
- Introduce on-street parking lanes to control traffic speeds.

Phase 4: Construction and implementation

- Based on the condition assessment, stakeholder consultation and the detailed planning phases, specific interventions and be constructed and implemented.

Phase 5: Monitoring and Evaluation

- Ongoing monitoring and evaluation of the interventions will inform the best design interventions, usability and future projects.

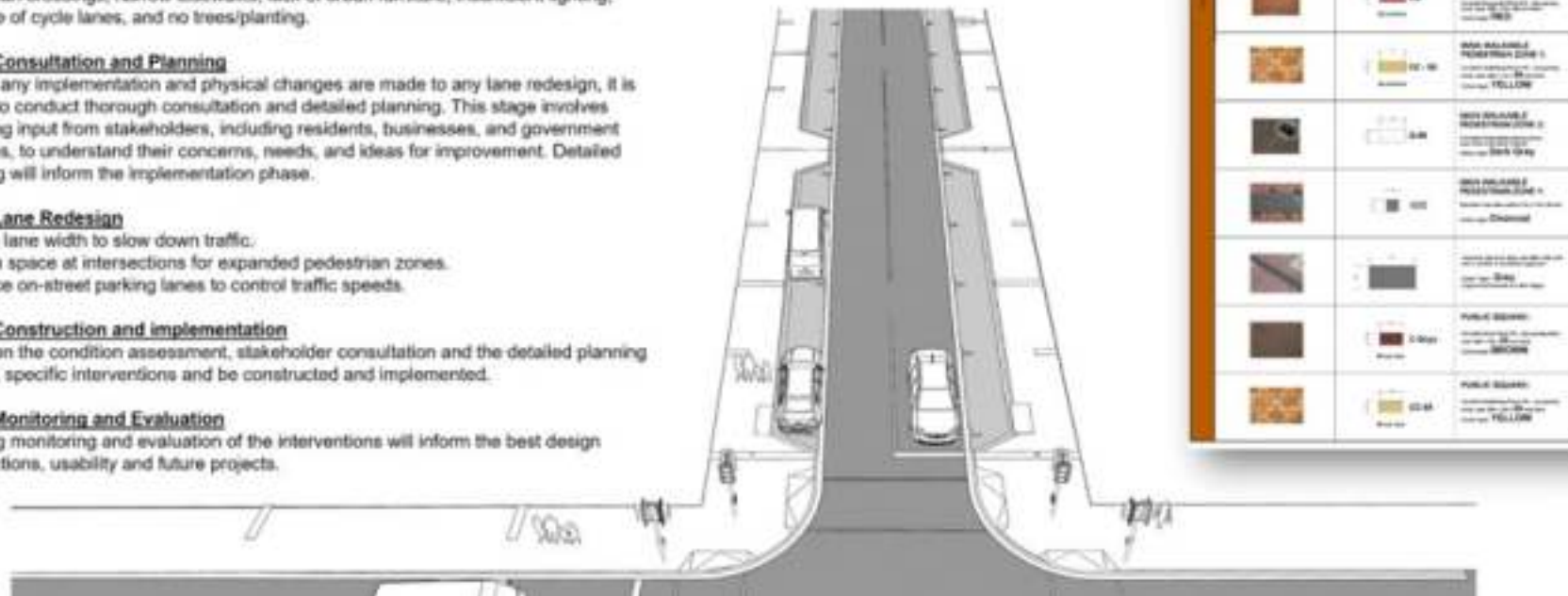


Diagram 74: Street Transformations – Parking Zone

Phase 1: Existing Street Condition Assessment

- Evaluate current shortcomings: Wide, mono-functional car traffic lanes, long and limited pedestrian crossings, narrow sidewalks, lack of urban furniture, insufficient lighting, absence of cycle lanes, and no trees/planting.

Phase 2: Consultation and Planning

- Prior to any implementation and physical changes are made to any lane redesign, it is crucial to conduct thorough consultation and detailed planning. This stage involves gathering input from stakeholders, including residents, businesses, and government agencies, to understand their concerns, needs, and ideas for improvement. Detailed planning will inform the implementation phase.

Phase 3: Lane Redesign

- Reduce lane width to slow down traffic.
- Reclaim space at intersections for expanded pedestrian zones.
- Introduce on-street parking lanes to control traffic speeds.

Phase 4: Street Programming

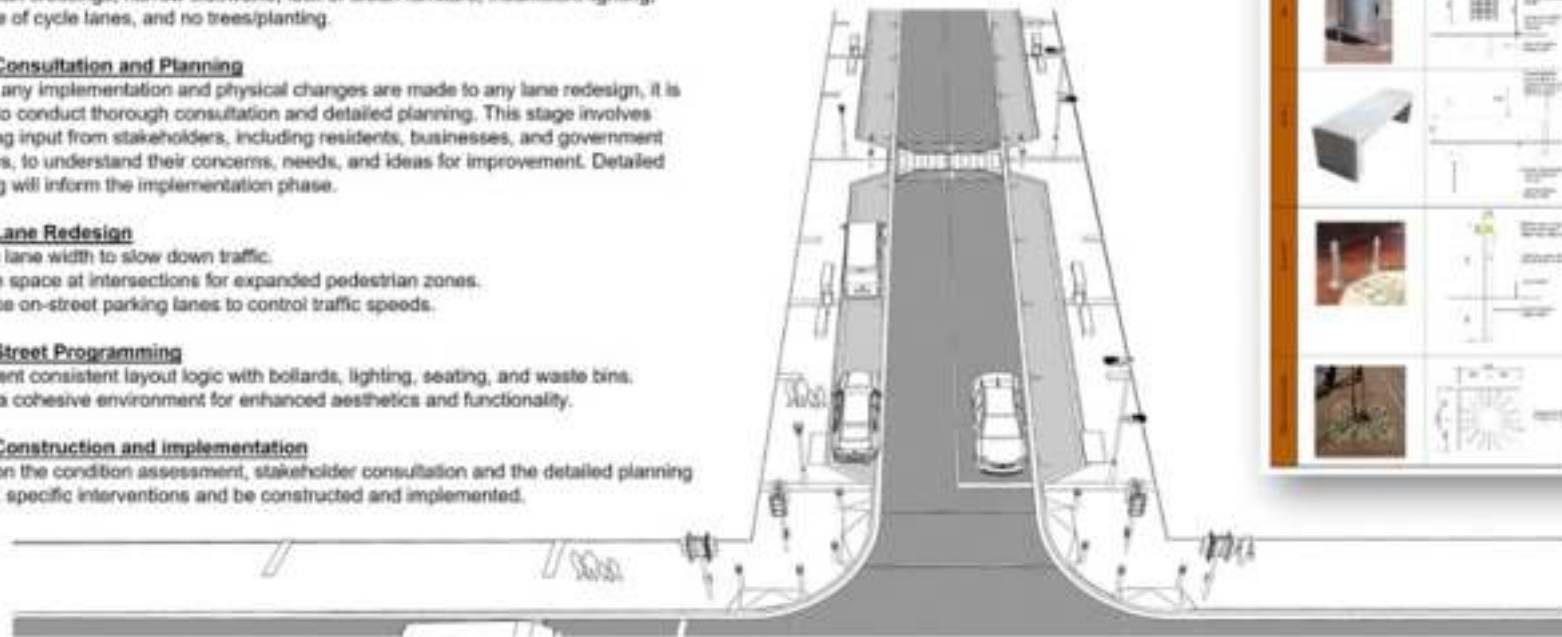
- Implement consistent layout logic with bollards, lighting, seating, and waste bins.
- Create a cohesive environment for enhanced aesthetics and functionality.

Phase 5: Construction and implementation

- Based on the condition assessment, stakeholder consultation and the detailed planning phases, specific interventions and be constructed and implemented.

Phase 6: Monitoring and Evaluation

- Ongoing monitoring and evaluation of the interventions will inform the best design interventions, usability and future projects.



ITEM	DESCRIPTION	REMARKS
	Benches	Standard 1200mm x 450mm x 450mm, 1 per 100m of sidewalk.
	Bollards	Standard 100mm diameter, 1 per 10m of sidewalk.
	Trees	Standard 100mm diameter, 1 per 100m of sidewalk.
	Street Lighting	Standard 1000mm height, 1 per 100m of sidewalk.
	Waste Bins	Standard 1200mm x 600mm x 1000mm, 1 per 100m of sidewalk.

Diagram 75: Street Transformations – Urban Furniture and Universal Accessibility

Phase 1: Existing Street Condition Assessment

- Evaluate current shortcomings: Wide, mono-functional car traffic lanes, long and limited pedestrian crossings, narrow sidewalks, lack of urban furniture, insufficient lighting, absence of cycle lanes, and no trees/planting.

Phase 2: Consultation and Planning

- Prior to any implementation and physical changes are made to any lane redesign, it is crucial to conduct thorough consultation and detailed planning. This stage involves gathering input from stakeholders, including residents, businesses, and government agencies, to understand their concerns, needs, and ideas for improvement. Detailed planning will inform the implementation phase.

Phase 3: Lane Redesign

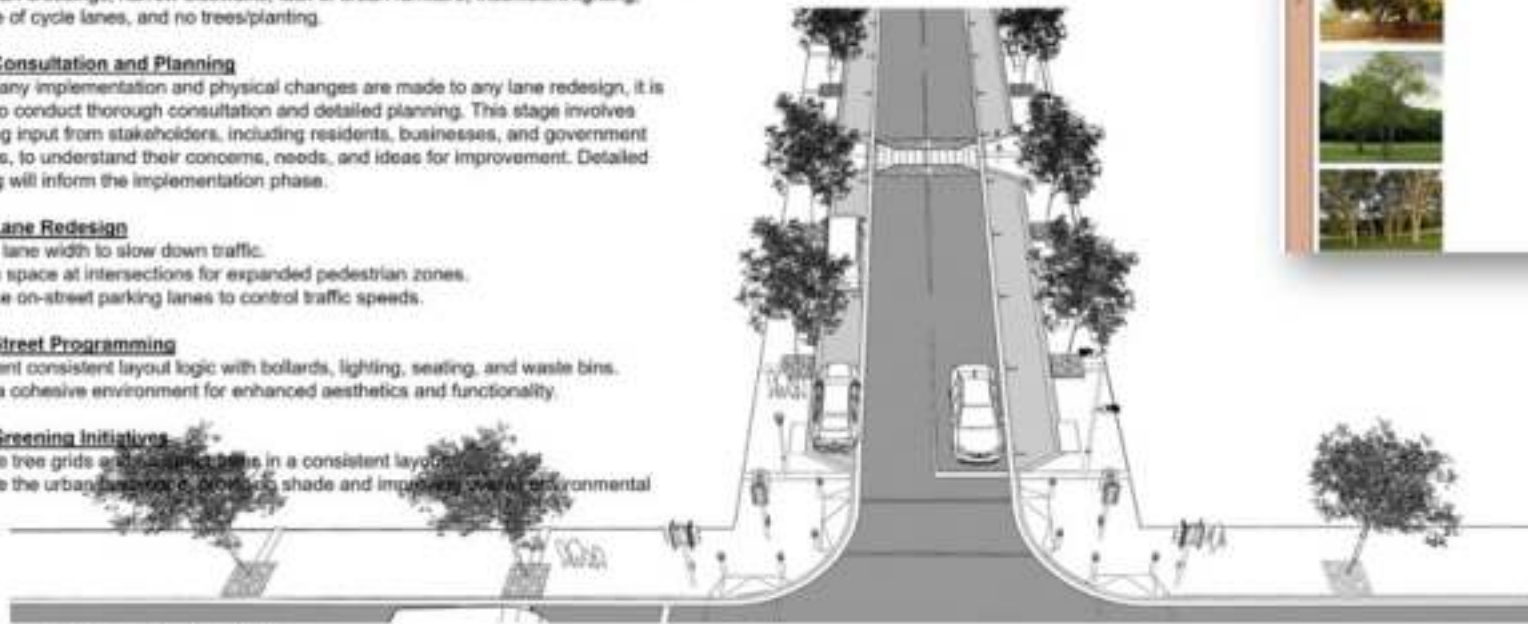
- Reduce lane width to slow down traffic.
- Reclaim space at intersections for expanded pedestrian zones.
- Introduce on-street parking lanes to control traffic speeds.

Phase 4: Street Programming

- Implement consistent layout logic with bollards, lighting, seating, and waste bins.
- Create a cohesive environment for enhanced aesthetics and functionality.

Phase 5: Greening Initiatives

- Integrate tree grids and plantings in a consistent layout.
- Enhance the urban landscape, provide shade and improve overall environmental quality.



Phase 6: Construction and implementation

- Based on the condition assessment, stakeholder consultation and the detailed planning phases, specific interventions and be constructed and implemented.

Phase 7: Monitoring and Evaluation

- Ongoing monitoring and evaluation of the interventions will inform the best design interventions, usability and future projects.

This phased approach ensures a systematic transformation from the existing conditions to a more pedestrian-friendly, visually appealing, and sustainable urban environment.

Diagram 76: Street Transformations - Landscaping

12.3.1 TACTICAL STREET REFORM

Refer to:

Diagram 77: Tactical Street Reform

Diagram 78: Tactical Street Reform

Embrace adaptability and innovation through tactical street reform:

- **Flexible Kerbside Use:**
 - Convert on-street parking or travel lanes for dynamic purposes like bus lanes, cycle tracks, parklets, or food truck zones.
 - Encourage diverse activities on Kerbsides to enrich street life.
- **Interim Sidewalk Widening:**
 - Address changing neighbourhood dynamics by temporarily expanding sidewalks using materials like epoxied gravel, planter beds, and bollards.
 - Manage pedestrian congestion effectively while awaiting comprehensive reconstruction.
- **Traffic Calming Measures:**
 - Install temporary devices, such as narrow drainage channels and offset islands, for speed control.
 - Prepare for full street reconstruction by implementing proactive traffic calming strategies.
- **Pedestrian Focus:**
 - Implement marked crosswalks for safety.
 - Expand sidewalks for increased foot traffic.
- **Multi-Modal Accessibility:**
 - Allocate space for bike lanes.
 - Designate areas for public transport stops.
- **Traffic Calming Measures:**
 - Narrow lanes to reduce vehicle speeds.
 - Introduce islands for traffic control and pedestrian safety.
- **Green Infrastructure:**
 - Plant street trees for shade and aesthetics.
 - Incorporate rain gardens for sustainable stormwater management.
- **Complete Street Furnishing:**
 - Install urban furniture and wayfinding signage.

- Enhance streetscape with benches and lighting.
- **Mixed-Use Development:**
 - Promote ground-floor activation for vitality.
 - Implement setbacks for outdoor seating.
- **Green Stormwater Infrastructure (GSI):**
 - Promote GSI, thus promoting water conservation, enhancing ground water recharge, and reducing surface runoff:
 - Promote use of permeable pavements and grass pavers where viable.
 - Opt for vegetated swales or filter strips for roads median and open channels.
- **Public Art Integration:**
 - Introduce art installations and murals.
 - Use creative street decor for visual appeal.
- **Community Engagement:**
 - Involve stakeholders for input.
 - Conduct public workshops for community participation.
- **Phased Implementation:**
 - Gradually implement changes for community adaptation.
 - Test elements through pilot projects.
- **Routine Maintenance:**
 - Improve and prioritise routine maintenance of stormwater infrastructure, thus ensuring that infrastructure runs at full capacity. Improve cleaning of streets thereby limiting litter and silt ending up in stormwater drainage system.
- **Safety Measures:**
 - Improve street lighting.
 - Install safe pedestrian crossings.

These guidelines aim to create a safer, accessible, and vibrant CBD environment through incremental changes and community involvement.



RECLAIMED INTERSECTIONS



Reduced Traffic Lanes: Implementation involves a deliberate reduction in the number of traffic flow lanes at urban intersections, prioritizing pedestrian safety and urban aesthetics.

Enhanced Pedestrian Crossing: By reducing the lanes, the pedestrian crossing length is shortened, promoting efficient and safer movement for pedestrians across intersections.

Speed Control Mechanism: The reduction of lanes inherently encourages lower speeds at intersections, contributing to overall urban safety and creating a more pedestrian-friendly environment.

On-Street Parking Allocation: The reclaimed space from reduced traffic lanes is strategically allocated to create on-street parking lanes, optimizing urban space for pedestrian use while also addressing parking needs.

Traffic Flow Restriction: The lanes repurposed for on-street parking serve the dual purpose of not allowing the continuous flow of traffic, emphasizing a balance that prioritizes both pedestrian accessibility and controlled vehicular movement.

Pedestrian-Centric Urban Design: The approach underscores a shift towards a pedestrian-centric urban design, emphasizing the importance of creating vibrant, walkable spaces within the cityscape.

Holistic Urban Transformation: The initiative goes beyond mere traffic management, contributing to a holistic transformation of urban spaces by promoting sustainable transportation modes and fostering community-friendly streetscapes.



Diagram 77: Tactical Street Reform



THE STREET AS IS:

- The existing condition comprises an all-roadway space with high-speed wide turning circles.
- Sidewalks are limited, and there are no trees, resulting in a lack of pedestrian-friendly features.

TEMPORARY RECONFIGURATION:

- Tactical urbanism is applied by introducing temporary elements such as large concrete potted planters with trees and bollards.
- These temporary items delineate a new vehicular lane and on-street parking layout, effectively narrowing the street and contributing to lower traffic flow speeds.

PERMANENT BEAUTIFICATION:

- The reclaimed sidewalk space is transformed for pedestrians with permanent improvements.
- Green, shaded areas along streets are introduced, contributing to a fresher environment.
- Sidewalks are creatively painted, avoiding the need for costly repaving.
- This high-impact, low-cost project enhances the quality of public space, supports the local economy, and fosters vital activities through engaging public art projects.

Diagram 78: Tactical Street Reform

12.3.2 PRIMARY PEDESTRIAN ROUTES

Refer to:

Diagram 79: Primary Pedestrian Routes

Issues in Polokwane CBD Pedestrian Routes:

The pedestrian routes in Polokwane CBD face challenges related to their design and functionality. Walkways are often narrow, causing congestion and discomfort for pedestrians. Poorly planned intersections, particularly along main desire lines, create confusion and safety concerns. Universal accessibility features are lacking, making it difficult for individuals with mobility impairments to navigate the routes. Limited landscaping and greenery contribute to an unappealing environment, and there's a need to address the impact of CO2 emissions from vehicular traffic.

Considerations and Benefits for Improvement:

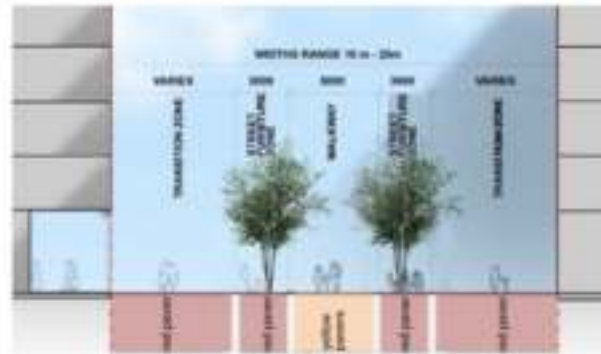
Prioritizing sustainable modes like walking and cycling to facilitate easy, comfortable, and appealing local journeys is of paramount importance in addressing the needs of pedestrians and cyclists in street design. To enhance Polokwane CBD's pedestrian routes, considerations should include widening walkways for improved comfort and flow. Thoughtful intersection planning with clear signage will enhance safety and ease of navigation. Prioritizing universal accessibility ensures inclusivity for everyone. Introducing more green infrastructure and beautification efforts will enhance the visual appeal and contribute to a healthier environment. These improvements not only create a more pleasant urban experience but also foster community pride and engagement. Additionally, encouraging walking over vehicular transport contributes to a greener and more sustainable CBD.

Guidelines for primary pedestrian routes:

- Use this zone as a buffer between the street and pedestrians to enhance safety and create a visually appealing environment.
 - **Universal Accessibility:**
 - Prioritize universal accessibility through ramps, elevators, and smooth pathways for seamless navigation by individuals of all abilities.
 - **Strategic Route Planning:**
 - Prioritize pedestrian routes that connect important destinations like the civic park, taxi ranks, shopping centres, educational and office districts, focusing on areas with high foot traffic.
 - **Adequate Lighting:**
 - Install sufficient and strategically placed lighting to ensure safety during evening hours, considering energy-efficient and aesthetically pleasing and alternative energy solutions.
 - **Comfort and Rest Areas:**
 - Identify strategic spaces along the pedestrian routes for the installation of seating areas, shaded spots, and water stations to enhance visitor comfort and provide places for relaxation. Implement green spaces that contribute to the overall aesthetic appeal and environmental sustainability of the area.
 - **Regular Maintenance and Management:**
 - Enforce a routine maintenance schedule for cleanliness and safety, supported by effective management practices. Create a small, versatile team to handle tasks like pothole repair, pavement maintenance, landscaping, and security, ensuring the ongoing well-being of pedestrian routes.
- **Minimum Sidewalk Width:**
 - Establish a minimum sidewalk width of 2 meters to ensure comfortable pedestrian flow.
 - **Street Furniture Zone:**
 - Create a dedicated zone along sidewalks with street trees, landscaping, bins, lights, traffic signage, and services to enhance safety and aesthetics.



POTENTIAL:



- **Minimum Sidewalk Width:** Ensure 2m width for comfortable pedestrian flow.
- **Street Furniture Zone:** Create zones with trees, lights, bins for safety and aesthetics.
- **Universal Accessibility:** Prioritize ramps, elevators, and smooth pathways.
- **Strategic Route Planning:** Connect parks, shopping areas with high foot traffic.
- **Adequate Lighting:** Install strategic, energy-efficient lights for evening safety.
- **Comfort and Rest Areas:** Identify spaces for seating, shade, water stations for visitor relaxation.

PRECEDENTS:



COMPLETE STREETS INCLUDE:



Source: Sidewalk Street Design Guide

SIDEWALK UPGRADES:



**RESHAPING SIDEWALKS
CHENNAI, INDIA**



Diagram 79: Primary Pedestrian Routes

12.3.3 TRANSFORMING SERVICE LANES AND ALLEYS

Refer to:

Diagram 80: Transforming Service Lanes and Alleys into Inviting Pedestrian Arcades: Boosting Local Economy

Considerations and Benefits for Improvement:

- **Considerations for Transforming Laneways and Alleys into Vibrant Pedestrian and Commercial Hubs:**
 - Careful considerations are paramount in the transformation of laneways and alleys into vibrant pedestrian and commercial hubs. Each laneway should undergo individual assessments to tailor interventions based on loading, services, and overall design. Prioritizing business activation with active ground-floor enterprises and ensuring a pedestrian-focused design with well-maintained pathways and crossings are critical considerations. Additionally, engaging the local community in shaping the laneway character and addressing necessary infrastructure upgrades contribute to the success of the transformation.
- **Benefits of Transforming Laneways and Alleys into Vibrant Pedestrian and Commercial Hubs:**
 - The transformation of laneways and alleys yields multifaceted benefits for the community and the local economy. Economic revitalization occurs as increased frontage for businesses attracts more customers, fostering local economic growth. The creation of vibrant, pedestrian-friendly environments enhances the overall urban atmosphere, encouraging increased foot traffic and potential business opportunities. Cultural enrichment and community pride are nurtured through the incorporation of local art and residents' involvement in the transformation process, creating enjoyable and dynamic spaces for both residents and visitors alike.



CURRENT CONDITION:



PRECEDENTS:



UNIVERSAL ACCESSIBILITY:

Upgrades ensure universal access, addressing limitations for all individuals.

enhancements support small businesses, attracting foot traffic and fostering economic growth.

IMPROVED CONNECTIVITY:

opening access points and activating facades enhances pedestrian route connectivity.

AESTHETIC ENHANCEMENT: upgrades transform dilapidated arcades, creating a visually appealing urban environment and fostering community pride.

BUSINESS REVITALIZATION:

Diagram 80: Transforming Service Lanes and Alleys into Inviting Pedestrian Arcades: Boosting Local Economy

12.3.4 PUBLIC TRANSPORT LAYBYS

Refer to:

Diagram 81: Efficient Urban Mobility: Public Transport Circuit Laybys Layout

Benefits and Considerations:

Access to public transport in Polokwane offers vital transportation choices, connecting residents to town centres, schools, and employment locations. By reducing dependence on private cars, the city fosters sustainable mobility, mitigating traffic congestion and lowering the carbon footprint. This not only promotes environmental sustainability but also contributes to economic efficiency and community connectivity. In the context of Polokwane, where public transport stops are limited on main routes and minibus taxis are prevalent, enhancing accessibility and ensuring passenger safety become crucial considerations. These collective benefits underscore the importance of investing in a well-integrated public transport system to create a more accessible, efficient, and environmentally friendly urban environment.

Guidelines for Public Transport Stops:

- **Walking Distances to Public Transport:**
 - Consider service quality, walk safety, attractiveness, and total journey length when determining acceptable walking distances.
 - Recognize that people are generally willing to walk up to 10 minutes to a railway station and 5 minutes to a bus stop.
- **Linkage to Other Factors:**
 - Ensure accessibility is linked to mixed-use developments, local amenities, housing types, densities, and parking arrangements.
- **Design and Infrastructure Enhancements:**
 - Provide covered waiting areas at public transport stops for passenger comfort in all weather conditions.
 - Install ablution facilities near waiting areas to enhance passenger convenience.
 - Introduce trees and landscaping to improve aesthetics and create a pleasant waiting environment.
 - Encourage the placement of public transport stops within a 400-800m (5–10-minute walk) radius of main activity areas, accounting for actual walking distances and considering

barriers like inadequate lighting, wayfinding challenges, and high-traffic routes.

- **Integration with Parking Layout:**
 - Integrate public transport stops into the parking lane along main routes, ensuring convenient access for pedestrians and vehicles.
- **Polokwane-Specific Considerations:**
 - Acknowledge the limited allocation of public transport stops on main routes in Polokwane.
 - Recognize the prevalent use of minibus taxis for public transport, addressing safety concerns associated with this mode of transportation.
 - Highlight the potential benefits of creating quality public transport stops along main routes to manage vehicular congestion and ensure safe passenger boarding and alighting.
- **Pathway Considerations:**
 - Ensure well-lit, wayfinding-friendly pathways to minimize walking barriers.
 - Consider factors such as adequate lighting, green spaces, and high-traffic routes in pathway design to enhance overall safety and usability.



PROBLEM:



POTENTIAL:



UNIVERSALLY ACCESSIBLE PUBLIC TRANSPORT STOPS:

- Ensure a non-slip, solid, smooth, level, and well-drained paved area around shelters, connecting to adjacent walkways.
- Keep pedestrian access/circulation clear of obstructions by thoughtfully locating street furniture and signage.
- Maintain consistency in transit stop design, materials, and signage for increased recognizability.
- Place transit stops near entrances to public buildings to provide sheltered waiting areas.
- Design transparent sides for transit shelters to enhance visibility and security.
- Include transit route maps and seating within shelters.
- Optimise views of incoming transit vehicles, pedestrians, and adjacent developments.
- Provide seating with armrests ensuring sufficient strength for support.
- Use trees and shrubs strategically to control sun, wind, and snow without compromising visibility.
- Illuminate transit stops adequately for orientation and security.
- Ensure accessibility of signage in terms of location and mounting height.
- Provide access/direction to public ablutions/pisoirs along the route of stops.

Diagram 81: Efficient Urban Mobility: Public Transport Circuit Laybys Layout

12.3.5 INTEGRATION OF PUBLIC ABLUTIONS AND PISSOIRS IN THE POLOKWANE CBD

Refer to:

Diagram 82: Optimizing Urban Amenities: Public Ablutions

Diagram 83: Optimizing Urban Amenities: Pissiors

Introduction: Addressing Urban Challenges through Strategic Amenities

In the pursuit of creating a vibrant and inclusive city centre, the Polokwane CBD Development Manual emphasizes the strategic integration of public amenities to address urban challenges. Among these essential elements, the deployment of public ablutions and pissoirs is crucial, not only for practical needs but also to enhance the overall quality and functionality of public spaces. This section provides guidance on the thoughtful placement, management, and multifunctional possibilities of these facilities.

- **Strategic Placement: Enhancing Accessibility and Convenience:**
 - Recognizing the need to address challenges such as public urination and unpleasant odours, the Development Manual advocates for the strategic placement of pissoirs within a 5-minute walking distance from public ablutions. These facilities should be concentrated near busy pedestrian intersections, main activity centres, large markets, informal trading areas, public transport interchanges, and the main activity spines of the CBD. The aim is to ensure accessibility and convenience for a diverse range of individuals, improving overall cleanliness and user experience.
- **Multifunctional Integration: Optimizing Urban Spaces:**
 - To streamline management and enhance the urban landscape, consider incorporating public ablutions and pissoirs into existing structures. This could involve integrating these facilities within ticket offices at bus stops, retail centres, or entrances to government precincts. The multifunctional nature of these spaces not only optimizes resource use but also contributes to the economic vitality of the area, providing services beyond basic sanitation.

- **Economic Considerations: Innovative Revenue Streams:**
 - Exploring economic opportunities, the Development Manual suggests innovative approaches such as introducing bath houses where users pay for the use of laundries, bathing facilities, and toilet amenities. This not only addresses hygiene needs but also creates sustainable revenue streams. Collaborations with nearby shops can be explored, allowing shared facilities that generate income for both the public and private sectors. This collaborative approach ensures the continued upkeep of public amenities while supporting local businesses.
- **Collaboration Framework: Public and Private Symbiosis:**
 - In the spirit of fostering a symbiotic relationship between the public and private sectors, the Development Manual encourages collaboration in the operation and maintenance of shared facilities. A structured framework for collaboration with nearby shops and businesses is proposed, creating a win-win situation that benefits both stakeholders. This collaborative model not only ensures the sustained functionality of public amenities but also contributes to the economic vibrancy of the surrounding areas.

In conclusion, the Integration of Public Ablutions and Pissiors in Polokwane CBD, as outlined in this Development Manual, is a strategic initiative aimed at enhancing the urban experience. By carefully considering placement, management, multifunctional possibilities, economic considerations, and collaboration frameworks, the CBD can transform into a well-rounded and economically sustainable urban centre. Through the implementation of these guidelines, Polokwane's CBD has the potential to set a precedent for innovative and inclusive urban development.



Diagram 82: Optimizing Urban Amenities: Public Ablutions

12.4 BUILDINGS AND SITE DEVELOPMENT

Challenges in Polokwane CBD:

In the Polokwane CBD, various challenges impede the building form, affecting both vibrancy and functionality:

- Larger developments, notably retail centres, suffer from blank facades, diminishing vibrancy.
- Lack of active ground-floor uses along streets and poorly managed busy sidewalks create navigation difficulties.
- Refurbishments for new institutions and colleges occur, but the existing urban fabric lacks a consistent high-quality student life experience.
- Potential for residential spaces and mixed-use development through infill and additional storeys is underutilized due to a lack of clear directive approaches.
- Signage overload disrupts visual coherence and wayfinding.

To revitalize the CBD, actions include promoting compact, mixed-use developments, higher density, enhancing student amenities, enforcing signage, and advertising regulations, and improving streetscapes. Addressing these challenges will contribute to a more visually appealing, functional, and vibrant Polokwane CBD.

Considerations for Building Guidelines: When formulating building guidelines, it is imperative to prioritize architectural harmony, ensuring that new constructions complement the existing urban landscape. Adhering to zoning regulations and engaging with the community during the planning process fosters a sense of unity and aligns development with the needs and preferences of residents. Environmental consciousness plays a crucial role, emphasizing sustainable practices and green building methods to minimize the ecological impact. Additionally, a commitment to universal accessibility ensures that buildings are welcoming and inclusive for individuals of all abilities.

Benefits of Building Guidelines: Enhancing existing public environment edges and thoughtfully designing the frontages of proposed buildings can significantly contribute to the vibrancy of the CBD.

The adherence to well considered building guidelines yields multiple benefits for the community. Aesthetic cohesion is maintained, contributing to a visually pleasing urban environment that resonates with the existing architectural fabric. Community engagement fosters support and a sense of pride among residents, creating a collaborative approach to urban development. Sustainable practices not only reduce the environmental footprint but also contribute to the overall well-being of the community. Lastly, following building guidelines contributes to increased property values, fostering economic prosperity within the community.

12.4.1 PERIMETER BUILDINGS AND ACTIVE STREET FRONTAGES

Refer to:

Diagram 84: Revitalizing Urban Spaces: Enhancing Existing Activity

Diagram 85: Ground Floor Activation

Guidelines for Activating Ground Floors and Enhancing Existing Activity:

- **Assessment and Retrofitting:**
 - Evaluate existing building frontages for accessibility, window shopfronts, and safety.
 - Identify a transition zone in the sidewalk for activity to spill out onto the street.
- **Addressing Blank Facades:**
 - Identify and assess existing blank facades, such as parking garages, blank walls, and shopping centres.
 - Transform blank facades by retrofitting spaces with shop fronts or pop-up shops, introducing trading stalls, and incorporating parklets to create vibrant spaces.
 - Introduce or convert spaces into local markets, seating areas, enhancing vibrancy and quality along main routes.
 - Utilize service lanes to create pedestrian-friendly shopping areas.
- **Greenery and Landscaping:**
 - Add greenery through potted plants, vertical gardens, and hanging planters to soften facades and create an inviting atmosphere.

- Introduce trees and adequate lighting for visual appeal and overall ambiance.
- Retrofit buildings with green roofs or living walls for environmental sustainability and aesthetic enhancement.
- **Public Seating and Social Spaces:**
 - Install benches, seating nooks, or movable chairs along building edges to encourage social interactions.
 - Create small public squares or gathering spaces adjacent to buildings for community events and activities.
- **Lighting and Safety:**
 - Improve exterior lighting for enhanced visibility, especially during nighttime.
 - Utilize energy-efficient lighting fixtures for safety and a well-lit environment.
 - Install security cameras and collaborate with local law enforcement to enhance security.
- **Collaboration with Local Artists and Businesses:**
 - Partner with local artists for murals or temporary art installations on building facades.
 - Encourage businesses to extend their storefronts, creating dynamic and interactive street frontages.
- **Community Engagement:**
 - Organize community workshops and meetings to gather input from residents regarding desired changes and improvements.
 - Involve the local community in the decision-making process to align retrofitting efforts with their needs and aspirations.
- **Signage Management:**
 - Manage signage overload to create a positive experience for pedestrians and other users.
- **Infrastructure Management, Services, and Public Art:**
 - Implement proper waste management by introducing bins along the routes.
 - Position water meters and electrical boxes away from main building entrances, ensuring an aesthetically pleasing environment and unobstructed pedestrian movement.
 - Promote green infrastructure and public art installations to enhance the overall aesthetic appeal and environmental sustainability of the area.

By following these consolidated guidelines, existing interactive public environment edges and street frontages can transform into vibrant, safe, and inclusive spaces, significantly contributing to the community's vibrancy and well-being.



Diagram 84: Revitalizing Urban Spaces: Enhancing Existing Activity

ASSESSMENT:

- Identify and evaluate areas with inactive street facades.

GROUND-FLOOR ACTIVATION:

- Encourage vibrant ground-floor uses like shops and cafes.
- Promote mixed-use development for diverse activities.

DENSIFICATION:

- Support densification to enhance street vitality.

SIGNAGE COMPLIANCE:

- Enforce signage and advertising by-laws for visual coherence.

STUDENT EXPERIENCE ENHANCEMENT:

- Improve student life experience through targeted amenities.

MIXED-USE GUIDELINES:

- Provide clear rules for mixed-use development.

COMMUNITY ENGAGEMENT:

- Involve the community in decision-making.

ENVIRONMENTAL CONSIDERATIONS:

- Prioritize sustainability and universal accessibility.

GREEN STORMWATER INFRASTRUCTURE (GSI):

Promote GSI for buildings where viable:

- Rainwater Harvesting (collecting, storing and utilising rainwater that runs off from rooftops rather than allowing it to run off).
- Green Roofs (also known as eco- or vegetated roofs, these are layers of vegetation and/ or small trees planted over a waterproofing system that is installed on top of a flat or slightly sloped roof).

BENEFITS OF ADHERENCE:

- Highlight economic and aesthetic benefits.



Diagram 85: Ground Floor Activation

12.4.2 NEW DEVELOPMENT, INFILL OPPORTUNITIES AND DENSIFICATION

Refer to:

Diagram 86: Urban Growth Strategies: Densification, Intensification, and Infill Development

Diagram 87: Urban Growth Strategies: New Development Addressing the Street,

Benefits:

The development guidelines for Polokwane CBD aim to enhance the urban landscape by prioritizing visual harmony and vibrancy. Aligning with existing setback lines and building heights improves the streetscape and public spaces, while exploring perimeter block development creates cohesive urban blocks. Encouraging mixed-use development not only maximizes resources but also fosters a pedestrian-oriented environment. Improved parking strategies prioritize pedestrian-friendly frontages, introducing on-street parking for enhanced accessibility. Activating parking spaces with ground-floor activities adds vibrancy to the city centre.

Guidelines for New Development, Infill opportunities and densification:

- **Alignment with Existing Setback Lines, building heights, courtyard, and perimeter block development:**
 - Ensure new buildings align with existing setback lines to frame the street or public spaces for visual harmony.
 - Consider context and spatial relationships with neighbouring structures in terms of height, form, and mass.
 - Explore perimeter block development to create cohesive and well-defined urban blocks integrating courtyard spaces within developments to provide communal areas for residents.
- **Mixed-Use Development and Streetscape:**
 - Encourage mixed-use development for dynamic spaces.
 - Enhance the streetscape with active uses for a lively environment.
- **Design ground floors with pedestrian-friendly features like shop fronts for an engaging streetscape.**
- **Promote balconies and windows facing the public environment for safety and visual surveillance.**
- **Setback Considerations for New Heights:**
 - When introducing new building heights, consider setbacks for sunlight, views, and overall aesthetics.
 - Maintain a harmonious skyline with the strategic placement of taller structures.
- **Parking Considerations:**
 - Place parking at the back of the building to prioritize a pedestrian-friendly frontage.
 - Introduce on-street parking to enhance accessibility and safety.
 - Ensure that parking design is integrated seamlessly into the overall development plan to minimize visual impact.
 - Promote activity, such as restaurants, shops, or offices on ground floors of parking garages.
- **Council-Owned Sites for Community Engagement:**
 - Utilize ground floors of council-owned sites for community events, art exhibitions, workshops, and local markets, with development above.
 - Design flexible spaces adaptable to various community activities.
- **Consideration of Local History and Heritage:**
 - Ensure new developments reflect and celebrate local history and heritage.
 - Integrate elements that contribute to the neighbourhood's cultural identity.
- **Collaboration with Local Stakeholders:**
 - Collaborate with local businesses, residents, and community organizations during planning.
 - Seek input on the design of public spaces for alignment with community aspirations.



Diagram 86: Urban Growth Strategies: Densification, Intensification, and Infill Development



FOR AN ACTIVE URBAN CENTRE:

- Support /promote development up to 0m building-line: 'perimeter buildings'
- Line and 'activate' the street reserve edge of buildings with opportunities that attract pedestrians and visitors:
- Develop detailed building codes for new precincts - particularly where clusters of new buildings will shape a new public environment.

THE 'PERIMETER-BUILDING / 0m BUILDING-LINE' DEVELOPMENT FORM:

- Defines the public open space network: building are developed to the 0m building line on each site.
- Activates the public environment: anchoring entrances, arcades and colonnades, cafes, galleries, etc. along the public realm.
- Provides semi-private/public courtyards: for gardens, services, private parking, etc.

UNDESIRABLE BUILDING FORM/TYOLOGY: AVOID DEEP, FAÇADE SET-BACKS

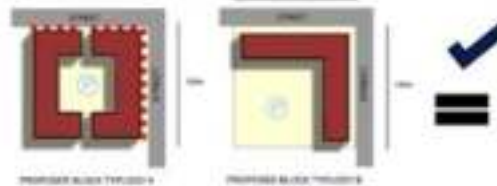


Diagram 87: Urban Growth Strategies: New Development Addressing the Street,

12.5 LEGIBILITY AND IDENTITY

12.5.1 HERITAGE PRESERVATION

Refer to:

Diagram 88: Heritage Preservation: Connecting Past, Present, and Future

By adhering to these guidelines, communities can actively engage in the preservation of their heritage, celebrating cultural identity, and fostering a balance between the past and the future.

Guidelines for Heritage Preservation:

- **Cultural Celebration and Identity:**
 - Objective: Preserve heritage to celebrate and perpetuate cultural identity.
 - Action: Recognize the importance of heritage in connecting communities with their cultural roots.
- **Landmarks and Future Heritage:**
 - Objective: Create landmarks and buildings that will become future heritage.
 - Action: Encourage the design and construction of structures that reflect the cultural essence of the community, ensuring their potential as future heritage assets.
- **Preservation of Existing Heritage Buildings:**
 - Objective: Preserve existing buildings with heritage status.
 - Action: Prioritize the preservation of buildings with recognized heritage value, employing maintenance strategies to ensure their viability and functionality.
- **Multi-Use Maintenance:**
 - Objective: Implement multi-use maintenance strategies for heritage buildings.
 - Action: Develop and employ maintenance plans that consider diverse uses for heritage buildings, ensuring their sustained relevance and vibrancy.
- **Complementary Design for New and Infill Buildings:**
 - Objective: Ensure new and infill buildings complement heritage structures.
 - Action: Enforce design guidelines for new constructions around heritage sites, ensuring that they harmonize with existing heritage buildings rather than overshadowing them.

- 1. **PRESERVE HERITAGE:** Prioritize preserving historic buildings and cultural elements.
- 2. **COMMITTEE ROLES:** Form dedicated (Heritage, Aesthetics) committees for policy input.
- 3. **POLICY GUIDELINES:** Collaborate with committees to create clear heritage preservation policies.
- 4. **REGULAR INSPECTIONS:** Regularly check heritage elements for upkeep needs.
- 5. **FUNDING PRIORITY:** Allocate funds for heritage care and restoration.
- 6. **LONG-TERM PLANNING:** Develop lasting heritage preservation plans.
- 7. **ADAPTIVE USE:** Explore adaptive use options for historic buildings.
- 8. **PUBLIC INVOLVEMENT:** Engage the community in heritage

discussions.

9. **EDUCATION EFFORTS:** Educate about heritage through signs and initiatives.

10. **UNIQUE APPROACHES:** Tailor policies to heritage.

11. **RECORD KEEPING:** Keep detailed records of heritage elements.

12. FUTURE HERITAGE:

Heritage is not confined to the past; it is a living, evolving concept that encompasses the present and future. Current policies play a pivotal role in shaping and preserving what will become 'future heritage' through contemporary spatial celebrations.



Diagram 88: Heritage Preservation: Connecting Past, Present, and Future

12.5.2 CONSISTENT LAYOUT LOGIC FOR PUBLIC ENVIRONMENT UPGRADES

Refer to

Diagram 89: Layout Logic

This section outlines guidelines aimed at elevating the public environment in Polokwane CBD. The primary objective is to establish a coherent urban identity and enhance the overall quality of experience for both residents and visitors. The identified directives and focus areas include:

- **6-Metre Grid:** A foundational 6-metre grid is implemented on both sides of the Grid Centreline, serving as a guiding framework for street and public environment layout. This grid, extending to the end of cadastral blocks, facilitates the organized placement of services, parking, and street furniture. Rooted in road standards, the 6-metre grid aligns with prescribed parking spaces, laybys, and streetlight placements, ensuring a uniform and efficient arrangement.
- **Bell Mouths:** The incorporation of Bell mouths into the street layout holds multifaceted significance. Functionally, they reduce pedestrian crossing distances, prioritizing safety and convenience. Bell mouths also integrate universal access tactile ramps, fostering inclusivity. Serving as key utility zones, they house various services and maintain a clutter-free streetscape. The kerb angle of 30 degrees enables seamless vehicular manoeuvring and efficient stormwater management. Purposeful design minimizes street furniture, particularly at corners accommodating services, traffic lights, and pedestrian crossings. Accessible ramp tactiles enhance universal navigation.

By steadfastly adhering to this consistent layout logic, public environment upgrades in Polokwane CBD aspire to cultivate cohesive, accessible, and aesthetically pleasing urban spaces, thereby enhancing the vibrancy and functionality of the CBD as a whole.

12.5.3 THE IMPLEMENTATION OF A UNIFIED STREET FURNITURE TEMPLATE FOR ENHANCING THE CBD'S PUBLIC ENVIRONMENT

Refer to:

Diagram 90: Street Furniture Template

Diagram 91: Street Furniture Template – Landscaping

This unified template, jointly adopted by the City Council and private developers, not only streamlines coordination with other agencies responsible for infrastructure such as roads, water, and electricity but also simplifies repaving efforts when necessary. By adhering to a straightforward and elegantly executed approach in landscaping, paving, and street furniture, the CBD can establish a consistent and appealing identity. This coherent design language not only enhances aesthetic appeal but also cultivates a sense of unity and character throughout the urban environment, creating a more inviting and enjoyable space for both residents and visitors in the city.

Street Furniture Template plans outlined here showcases specific street furniture items that have undergone rigorous workshops and secured approval from various local authorities, including transport and parks departments. These products are designed to withstand the demands of urban management while remaining adaptable to the unique context of Polokwane.

Furthermore, the strategic inclusion of substantial trees will significantly elevate the pedestrian and vehicular experience, while also contributing to environmental cooling. This comprehensive approach ensures improved coordination with other agencies and streamlines infrastructure maintenance efforts.

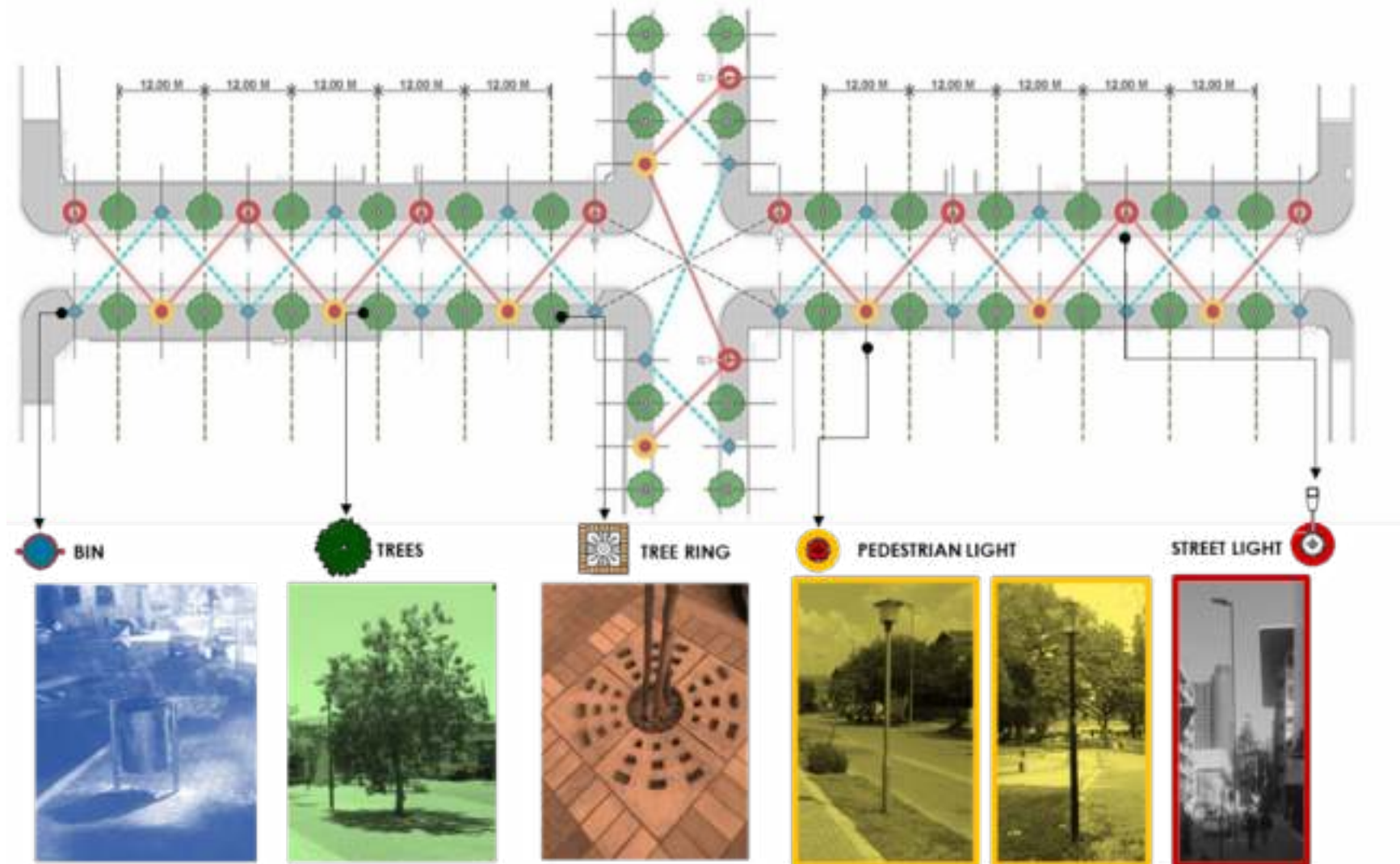

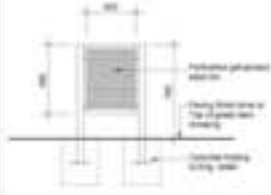

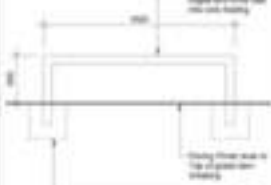



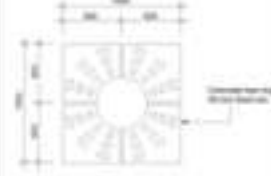






Diagram 89: Layout Logic

1	ITEM	DRAWING	GENERIC SPECIFICATIONS
SN			<ul style="list-style-type: none"> 1. Plated perforated iron sheet 2. 2 legs (filled with concrete) at periphery (drawing) 3. Box dimension - 300mm 4. Box depth - 50mm 5. Leg dimension - 100mm 6. Height - 100mm 7. Round top legs with flat perforated base <p>NB: ALL LEGS TO BE FILLED IN WITH CONCRETE</p>
BENCH			<ul style="list-style-type: none"> 1. Pre-cast Concrete Bench 2. 1000mm in length 3. 400mm in depth 4. 450mm in height 5. Smooth natural grey concrete <p>Finish: Special smooth & flat finish. Special Smooth & Flat (Grade 1) concrete. The standard of finish shall be such that upon removal of the formwork no further treatment other than treatment of both sides if required, shall be found necessary to provide a smooth concrete and uniform finish of good quality and consistent colour and texture. Use of all keyways etc.</p> <p>NB: LEGS TO BE CAST INTO CONCRETE FOOTING</p>
BELLWEE			<ul style="list-style-type: none"> 1. Reinforced steel column, 100mm high from finished ground area. 2. 2 x galvanized steel rings to be welded to top of reinforced job (indicated on drawing) 3. Concrete footing as per drawing for Ring details. 4. Top of finished base to be rounded or chamfered 5. Surface to top to top of finished base, outdoor Traffic grade, R45, 1000 <p>NB: BELLWEE TO BE FILLED IN WITH CONCRETE</p>
TREE ACCESSORIES (1) (1)			<ul style="list-style-type: none"> 1. 600 x 600 concrete plate Tree Ring with Ring 2. 100 x 100 x 100mm concrete 3. No concrete thickness 4. Finish: Smooth natural grey concrete <p>1. 600 x 600 x 100mm concrete plate Tree Ring with Ring from LUMINA CONCRETE PRODUCTS to be used to architect's approval.</p>

2	ITEM	DRAWING	GENERIC SPECIFICATIONS
TREE ACCESSORIES (1) (1)			<p>TREE PLANTER COPING: Manufacture per Spec. Draw. Size 1000 x 100 x 100 mm as per architect's approval</p> <p>Colour Type: Natural Grey</p>
			<p>TREE FACE BRICK PLANTER: Concrete: Country Standard White FFB Size 50/100/75mm</p> <p>Base Colour: Red</p>
PAVING			<p>WALKWAY: Concrete: Country Standard White FFB Size 100 x 100 x 50 mm thick</p> <p>Colour Type: RED</p>
			<p>WALKWAY: Concrete: Country Standard White FFB Size 100 x 100 x 50 mm thick</p> <p>Colour Type: YELLOW</p>
			<p>DRIVEWAY AND LAYBY Minimum 150mm to 200mm concrete thickness, per 221/2015/AN/000000</p> <p>Colour Type: MULTI-BLEND</p>
			<p>WALKWAY BAND: Standard concrete 100 x 100 x 50 mm</p> <p>Colour Type: Charcoal</p>

Diagram 90: Street Furniture Template

3a	ITEM	DRAWING	GENERIC SPECIFICATIONS
TREE	 <p>Specified as shown on plan</p> <p>• Type of tree: River Bushwillow (Combretum Erythrophylum) 100 litres Tree: Stem diameter 80 mm, height 2 metres minimum</p> <p>Composite infill All composite infill to be in accordance as per planting specifications and includes:</p> <ul style="list-style-type: none"> • Topsoil • Compost • Mulch • Supercal phosphate - Bone meal • Fertiliser • Irrigability <p>MINIMUM HEIGHT OF STAKES ABOVE GROUND LEVEL</p> <p>STAKES BELOW GROUND LEVEL</p> <p>Notes: - Tree must be 100% watered and kept in shade until established. - All composite infill to be in accordance as per planting specifications and includes: • Topsoil • Compost • Mulch • Supercal phosphate - Bone meal • Fertiliser • Irrigability</p>		
	 <p>Specified as shown on plan</p> <p>• Type of tree: Wild Olive (Olea Europa - Africana) 500 litres Tree: Stem diameter 100 mm, height 4-6 metres minimum</p> <p>Composite backfill All composite infill to be in accordance as per planting specifications and includes:</p> <ul style="list-style-type: none"> • Topsoil • Compost • Mulch • Supercal phosphate - Bone meal • Fertiliser • Irrigability <p>MINIMUM HEIGHT OF STAKES ABOVE GROUND LEVEL</p> <p>STAKES BELOW GROUND LEVEL</p> <p>Notes: - Tree must be 100% watered and kept in shade until established. - All composite infill to be in accordance as per planting specifications and includes: • Topsoil • Compost • Mulch • Supercal phosphate - Bone meal • Fertiliser • Irrigability</p>		


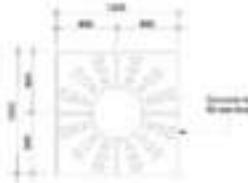



3b	ITEM	DRAWING	GENERIC SPECIFICATIONS
TREE RING		 <p>Concrete tree ring 400mm deep</p>	<ul style="list-style-type: none"> • 400 x 400 concrete panel Tree Ring (see Ring) • 100mm x 400mm x 400mm concrete • 100mm concrete backfill • 100mm x 400mm x 400mm concrete <p>1.2m x 1.2m - 4 concrete panels Tree Ring (see Ring from LUNGA CONCRETE PRODUCTS or similar to supplier's approval)</p>
	<p>PLANTS</p>  <p>DIETES BICOLOR YELLOW WILD OLIVE</p>  <p>REPRESENTATIONAL PICTURE ONLY</p> <p>DIETES BICOLOR YELLOW WILD OLIVE (1-2) to be planted under tree street trees</p>		<p>DIETES BICOLOR YELLOW WILD OLIVE (1-2) to be planted under tree street trees</p> <p>A3 size paper</p>

Diagram 91: Street Furniture Template – Landscaping

12.5.4 TRADERS' SHELTERS PLACEMENT STRATEGY FOR THE CBD

Within the CBD, the strategic placement of traders' shelters holds paramount importance. The careful consideration of positions within transition zones, street furniture/landscaping zones, and parking zones is crucial for optimizing the advantages of each location (refer to):

- **Transition Zones:**
 - *Objective:* Enhance market accessibility and diversity.
 - *Placement Strategy:* Positioning traders' shelters in transition zones facilitates seamless connectivity between neighbourhoods, attracting diverse foot traffic. This approach expands the market's customer base, fostering a dynamic and inclusive environment.
- **Street Furniture/Landscaping Zones:**
 - *Objective:* Integrate traders' shelters into visually appealing spaces.
 - *Placement Strategy:* Nestling traders' shelters amidst benches and greenery creates an inviting atmosphere. This integration enhances the overall aesthetic appeal, encouraging visitors to leisurely explore the market area and contributing to an enriched shopping experience.
- **Parking Zones:**
 - *Objective:* Ensure strategic placement for convenience and broadened accessibility.
 - *Placement Strategy:* Strategically positioning traders' shelters near parking facilities caters to both pedestrians and drivers. This approach attracts a diverse customer base, accommodating those relying on private vehicles. The synergy between traders' shelters and parking zones maximizes economic potential while ensuring convenience for all visitors.

By embracing these varied positions, the Polokwane CBD Masterplan seeks to optimize market visibility, accessibility, and urban vibrancy. This strategic placement strategy is designed to foster a flourishing market ecosystem within the city, contributing to the overall vitality and economic sustainability of the Polokwane CBD.

12.5.5 CBD GATEWAYS, LANDMARKS AND PUBLIC ART INSTALLATIONS

Refer to

Diagram 93: Gateways and Landmarks

Diagram 94: Public Art Installations

Creating effective gateways and landmarks in a Central Business District (CBD) is crucial for enhancing the area's aesthetic appeal, legibility, and identity. The guidelines include:

- **Strategic Placement:**
 - Identify key entry points and intersections for strategic gateway placement, enhancing CBD accessibility and visual identity.
 - Introduce landmarks through heritage buildings, new structures, landscaping features, street art, monuments, and special places.
 - Prioritize thoughtful placement, preserving historical and architectural integrity while promoting creativity and vibrancy. Ensure public art, landmarks, and gateways complement rather than obscure features on historic buildings, maintaining the city's heritage and promoting quality development.
- **Cultural Relevance and Identity:**
 - Ensure designs reflect Polokwane's cultural and historical identity, fostering a sense of place and community pride.
 - Caution against damaging historic materials and interfering with pedestrian flow, demonstrating a respectful approach to the existing urban environment.
- **Connectivity and Accessibility:**
 - Prioritize seamless integration with existing transportation infrastructure for pedestrians, cyclists, and vehicles.
- **Public Spaces and Amenities:**
 - Integrate public spaces around gateways with seating, greenery, and amenities for community gathering.
 - Consider pedestrian comfort with ample sidewalk space and pedestrian-friendly features.
- **Scale, Proportion, Excellence, and Sustainability:**

- Harmonize gateway scale and proportion with surroundings for visual impact without overwhelming.
- Engage skilled architects for excellent, innovative, and sustainable designs. Balance encouragement for public art, new landmarks with respect for historical context, providing a clear framework for artists and urban planners. These guidelines ensure public art, new buildings, and gateways enhance the CBD character without compromising its heritage.
- Prohibit flashy lights and electronic screens to preserve the historical ambiance, aligning with the area's rich heritage and promoting quality-built form.
- Community Engagement and Maintenance Planning:
 - Involve the community through consultations in the design process.
 - Plan for long-term maintenance to preserve aesthetic and functional integrity.



PROBLEM:

- OPTIMIZE SIDEWALKS:** Maximize sidewalk space - considering designated zones for street traders.
- INTRODUCE PARKLETS:** 'Street Trader Parklets' can provide safe spaces with barriers, in congested areas.
- PRIORITIZE PEDESTRIAN HUBS:** Focus upgrades on high-traffic pedestrian zones, especially around public transport stops.
- ADDRESS LIMITED SPACE:** Develop solutions for limited sidewalk space, ensuring safe circulation.

- PROVIDE INFRASTRUCTURE:** Include shelters, lighting, and water connections for enhanced street trade spaces.
- ENCOURAGE AESTHETIC HARMONY:** Ensure improvements contribute positively to the CBD's overall aesthetic.
- COLLABORATE WITH TRADERS:** Involve street traders in planning for practical input and preferences.
- ENSURE SAFETY COMPLIANCE:** Enforce guidelines that promote safety for both street traders and pedestrians.

SIDEWALK TRADE:



TRANSPORT INTERCHANGE TRADE:

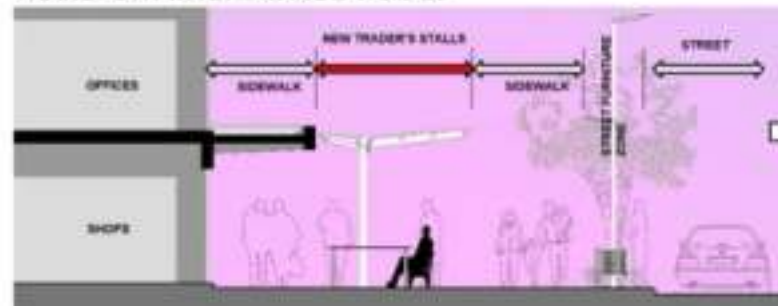


Diagram 92: Traders Shelter's and Informal Trade Upgrades



PROBLEM:



EXISTING ART ON POLOKWANE

Enhance Urban Landscape: Public art enriches the cityscape, adding interest and vibrancy for residents and visitors.

Careful Placement Emphasized: Commendable focus on careful placement avoids obscuring historic features and maintains the city's heritage and legibility.

Respect for Urban Environment: Caution against damage and interference shows respect for the existing urban environment, its users, and orderly flow.

Preserve Historical Integrity: Promote public art through thoughtful guidelines, while preserving historical and architectural integrity.

Balanced Approach: Striking a balance between encouraging public art and respecting history provides a clear framework for artists and urban planners, enhancing the CBD's character without compromising its heritage.

Avoid Flashing Lights: Prohibition of flashing lights and video screens preserves the historical ambience and aligns with the area's heritage.

SOLUTION:



SMITHFIELD - SWINCE, LONDON



JEKRY CITY - PEDESTRIAN ENGAGEMENT PLAN



NATIONAL STREET PUBLIC ART, JOHANNESBURG

Diagram 94: Public Art Installations

12.5.6 SIGNAGE

Refer to:

Diagram 95: Signage – Primary and Secondary Sign Recommendations

Diagram 96: Signage Intent

Introduction:

In the bustling urban environment of Polokwane CBD, the imperative for effective signage is not just a practical necessity but a legal mandate governed by local bylaws. However, the current state of signage in the CBD reveals significant challenges, particularly concerning visual clutter, inconsistency in design, overwhelm, and potential architectural diminishment. The proliferation of signs displaying redundant information creates confusion among pedestrians, while varying sizes and designs contribute to a chaotic visual landscape. This establishes the pressing need for comprehensive guidelines to address these issues, aiming to strike a harmonious balance between fulfilling bylaw requirements and preserving the distinctive character of Polokwane's architectural and cultural heritage.

Design Guidelines for Signs in Polokwane CBD:

- General Guidelines:
 - Signs should be well-designed, proportional to the building, and in harmony with the overall facade composition.
 - Coordinate signs within the building's overall design context.
 - Develop a master sign plan for the entire building.
 - Only a primary and secondary sign may be used for an individual business. A general clean-up of existing signage should occur to promote compliance and remove signs that no longer apply to the current building.
- Primary Sign:
 - Identify business/services clearly for easy vehicle visibility.
 - Font/design should be large enough for easy reading from a vehicle.
 - Minimize visual clutter; focus on essential information.
 - Individual sign characters/items cannot surpass 750mm in height, and the entire sign must not exceed 6m in length.
- Secondary Sign:
 - Capture pedestrian attention.
 - Provide basic information; avoid clutter.
- Easily visible from the sidewalk.
- Freestanding/Pole Mounted Signs:
 - Allowed for former residences with commercial use.
 - Use in areas where primary use is set back from the street edge.
- Flush-Mounted Wall Sign for the Primary Sign:
 - Signage placement is limited to the width of the frieze but must not exceed 6m in length. If the width exceeds this limit, it should not surpass more than 10% of the length of the building's frieze (frieze is above transom, below second-floor windows).
 - Respect borders; don't overlap or crowd architectural features.
 - Size: Not to exceed 1000 cm² per 929cm of linear facade width.
- Window Signs may be considered:
 - Cover no more than 30% of the total window area.
 - Convey contact info, business locations, or specific products/services.
 - Limit size and design for approval; avoid electronic message centres.
- Hanging Sign / Banner / Projecting sign:
 - Encouraged for pedestrian readability.
 - Locate near business entrance; max size: 0.8 square meters.
 - Clearance: Min. 2 -2.4 meters above sidewalk surface.
- Projecting Sign:
 - Proportional to the building; doesn't obscure architectural features.
 - Max size: 1.2 square meters; max height: 1.52 meters.
 - Clearance: Min. 2.6 meters above sidewalk surface; doesn't exceed 1/2 of sidewalk width.
- Awning and Canopy Signs:
 - Size proportional to awning/canopy.
 - Consider mounting on top to avoid obscuring architectural details.
 - Appearance from upper levels matters, and the sign should not exceed 750mm in height, and the entire sign must not exceed 6m in length / 4.5m²
- Directory Signs for Multi-Tenant Buildings:
 - Coordinate signs for multiple businesses.
 - Similar forms/backgrounds for visual cohesion.

- Consider mounting type for maximum allowable sign area.
- In developments with discrete units, multiple company names allowed, one per unit. Signs must be appropriately scaled to match the unit they represent.
- **Portable Signs**
 - Intended for pedestrian traffic; convey specific information.
 - A-frames, easels, or free-standing frames allowed.
 - Size limits based on type; secured to sidewalk; removed when business closed.
- **Sign Material and Lighting:**
 - Signs must be affixed using concealed fixings, without boards attached to the building.
 - High-quality, durable, and colorfast materials like natural or coated aluminum, brass, copper, or stainless steel are preferred.
 - Plastic or Perspex signs are discouraged; if used, a matte finish is recommended.
 - Signs should be back-lit or lit from a remote, hidden source, unless integral to the building's design.
 - Opaque, translucent signs lit from within and neon lighting are discouraged.
 - Moving, flicking, or flashing signage and lighting elements are strictly prohibited.
- **Building Facade Lighting:**
 - Flood or accent lighting of building facades is encouraged within an understated aesthetic.
 - Lighting should enhance the town center's form, use neutral coloring, and avoid excess light spillage or glare.
 - All lighting should originate from remote, hidden sources or architectural fixtures integrated into the building.



Diagram 95: Signage – Primary and Secondary Sign Recommendations

CURRENT CONDITIONS



VISUAL CLUTTER AND REPETITIVENESS:

The repeated display of the same information through multiple signs like shop names, windows, flags, and pillar signs creates confusion and visual clutter for pedestrians.

INCONSISTENCY IN SIZE, BOLDNESS, AND DESIGN:

Varied sizes, boldness levels, and designs among signs lead to visual turbulence, hindering people's focus and contributing to a chaotic urban landscape.

OVERWHELM DUE TO BUSYNESS AND COLOR CLASHES:

Signs overloaded with excessive information, graphics, and clashing colors overwhelm viewers, disrupting the harmony of the CBD and hindering message absorption.

BUILDING AND ARCHITECTURAL DIMINISHMENT:

Overly large or repetitive signs overshadow building architecture, obscuring historically or architecturally significant features and diminishing the unique character of structures.

Loss of Cultural and Aesthetic Value:

Domineering signs detract from the charm of buildings and cultural heritage, resulting in a loss of historical and cultural value, diminishing the overall aesthetic appeal of the CBD.



Source: UrbanSign.com

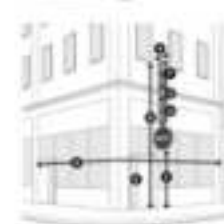
STREET DECLUTTERING PROGRAM



Vertical Signage Guidelines

Orientation: The vertical sign is an integral part of the building facade and should be designed to complement the building's architecture. It is oriented to the street.

Prohibited Locations: Prohibited on the Main Street Building facade of Government Buildings and other sites.



- 1. **Orientation:** The vertical sign is an integral part of the building facade and should be designed to complement the building's architecture. It is oriented to the street.
- 2. **Prohibited Locations:** Prohibited on the Main Street Building facade of Government Buildings and other sites.
- 3. **Sign Placement:** Signs should be placed in a way that does not obstruct the building's facade or the street view.
- 4. **Sign Design:** Signs should be designed to be visually appealing and to complement the building's architecture.
- 5. **Sign Size:** Signs should be of a size that is proportional to the building's facade and the street view.
- 6. **Sign Color:** Signs should be of a color that is visually appealing and that complements the building's facade.
- 7. **Sign Material:** Signs should be made of a material that is durable and weather-resistant.
- 8. **Sign Maintenance:** Signs should be maintained in a way that ensures they are always in good condition.



Diagram 96: Signage Intent

12.5.7 WAYFINDING AND ADVERTISING

Refer to

Diagram 97: Navigating the Cityscape: Wayfinding and Advertising Essentials

The current gateways in Polokwane encounter issues in both wayfinding and advertising. The signage at these entry points is unattractive, leading to a cluttered appearance that negatively impacts the visual appeal and aesthetics of the CBD. While street advertising is generally fair, improvements are needed to reduce clutter on buildings and provide clearer directional information. Additionally, there is a lack of clear wayfinding information about the CBD, posing challenges for residents and visitors. Enhancing the design and functionality of these gateways is essential to create a more visually appealing and navigable entrance to the city.

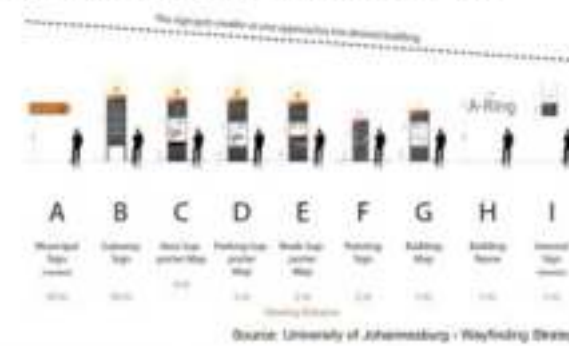
Considerations and Benefits for Improvement:

Considerations for Clear and Informative Signage: When implementing clear and informative signage, visibility and legibility are key considerations, ensuring that font size, color contrast, and placement optimize visibility. Maintaining consistent branding elements and involving local input in the design process help establish a cohesive and culturally relevant wayfinding system. Prioritizing the highlighting of tourist attractions, providing clear directional information, and engaging the local community contribute to the overall effectiveness of the signage.

Benefits of Clear and Informative Signage: Clear and informative signage significantly enhances the visitor experience by simplifying navigation and promoting local attractions prominently. Efficient wayfinding not only saves time for both tourists and locals but also positively shapes the city's image, leaving a lasting impression. Beyond economic benefits from increased foot traffic to attractions, community engagement in the signage design fosters a sense of pride and ownership, ensuring the wayfinding system aligns with the cultural identity and preferences of the local community.



WAYFINDING DESIGN FOR CONSISTENCY:



SCALES OF WAYFINDING INFORMATION:

- Municipal/City-Wide:**
 - Urban Connectivity:** Enhances overall city navigation for residents and visitors.
 - Consistent Branding:** Reinforces a unified visual identity for a memorable urban experience.
- Urban Context:**
 - District Differentiation:** Defines and differentiates urban districts, adding contextual understanding.
 - Transitions:** Guides seamless movement through diverse urban environments.
- Precinct Signage:**
 - Localized Guidance:** Provides detailed guidance within specific precincts, improving navigation.
 - Highlight Amenities:** Directs attention to local amenities, attractions, and services.
- Building Signage:**
 - Entrance Identification:** Assists in identifying building entrances and exits for easy access.
 - Internal Navigation:** Guides movement within buildings, reducing confusion.
- Room Signage:**
 - Spatial Orientation:** Essential for granular navigation within buildings.
 - Accessibility:** Vital for large complexes, hospitals, or educational institutions.

HIERARCHY OF WAYFINDING SIGNAGE:

- Inform:**
 - Convey General Information:** About surroundings, landmarks, or points of interest.
- Direct:**
 - Guide Toward Destinations:** Providing specific directions within a particular area.
- Confirm:**
 - Reassure Direction:** Offers confirmation to reduce uncertainty.
- Approach:**
 - Warn of Upcoming Changes:** Prepares individuals for upcoming alterations.
- Identify:**
 - Highlight Specific Locations:** Aids in the identification of landmarks or key areas.
- Herald:**
 - Announce Entry Points:** Marks entry into districts, signaling environmental changes.
- Statute:**
 - Convey Compliance Information:** Related to rules, regulations, or legal requirements.
- Ad Hoc:**
 - Offer Temporary Guidance:** For events, construction, or unique situations.



Diagram 97: Navigating the Cityscape: Wayfinding and Advertising Essentials

12.6 CONCLUSION - DEVELOPMENT MANUAL

The Polokwane CBD Manual plays a critical role in the successful execution of the Polokwane CBD Urban Development Framework by providing a comprehensive and structured guide for various stakeholders involved in the city's urban revitalization. While not exhaustive in its details, the manual articulates a visionary perspective to enhance the Polokwane CBD, leveraging the city's existing attributes for economic growth and celebrating its cultural diversity in an inclusive manner.

With its primary purpose being to ensure quality, consistency, and coherence in urban elements within the CBD, the manual acts as a precursor, setting the stage for a more detailed plan. This envisioned subsequent initiative is dedicated to refining the public environment, built structures, and overall identity of the CBD, ultimately creating a space that attracts investments and stands as a vibrant, culturally rich, and community-inclusive hub for both residents and visitors.

The manual's objectives strategically shape urban development within the CBD, emphasizing quality enhancement, the creation of a safer and welcoming environment, and the direction of strategic investments. It serves as a magnetic force for positive transformation, offering a clear framework for development in designated CBD areas.

In navigating the complex web of statutory regulations and development controls, the manual establishes a crucial link between government levels, policies, and regulations. Acting in harmony with overarching frameworks, it ensures alignment with statutory regulations, compliance with land use schemes, and adherence to national building standards.

Identified users of the Development Manual encompass city officials, community stakeholders, and the private sector. For city officials and urban planners, the manual serves as a decision-making tool, guiding strategic alignment with the CBD Urban Development Framework. Simultaneously, it provides transparent guidance for private sector stakeholders, fostering collaboration and coordination to achieve a cohesive and mutually beneficial transformation of the city centre.

In essence, the Development Manual acts as a guiding document for the evolution of Polokwane's CBD. Its strategic vision, detailed objectives, and role in navigating regulatory complexities position it as a catalyst for positive change. By fostering collaboration among diverse stakeholders, the manual sets the stage for a revitalized CBD that not only meets high standards of quality and safety but also mirrors the collective aspirations of the community and private sector, working together towards the shared goal of continuously improving Polokwane's CBD.

13 PRECINCT PLANS

13.1 INTRODUCTION

Refer to:

Diagram 98: Identifying the Precincts

This chapter focuses on the identification and exploration of specific precincts in alignment with the City's Development Framework and its extension, the Development Guidelines. Emphasizing the objectives of attracting investment and enhancing the social fabric of the CBD, the framework and manual provides strategic direction for both private and public sector efforts. As opposed to a scattered approach to investment in the CBD, particular precincts for concentrated investment have been identified,

To enhance the urban fabric and foster a vibrant, sustainable Central Business District (CBD), the Development Manual proposes an assembly of improvement projects aligned with the 'CBD Urban Development Framework' (CBD UDF). These projects are designed to attract focused investment from both public and private sectors. For these initiatives to effectively contribute to the overall revitalization of the CBD, they must incorporate several critical elements:

- **Creation of Pedestrian-friendly Networks:**
 - Developing comprehensive and accessible pedestrian pathways to ensure safe, enjoyable, and convenient foot traffic throughout the CBD. This includes well-lit sidewalks, pedestrian plazas, and public spaces that encourage walking and enhance the urban experience.
- **Establishment of Versatile Transport Interchanges:**
 - Implementing multi-modal transport hubs that facilitate seamless transitions between different forms of transportation, such as buses, trains, bicycles, and pedestrian routes. These interchanges should be designed to support the flow of people and goods, reducing congestion and improving accessibility.
- **Promotion of Mixed-use Streets:**
 - Encouraging the development of streets that support a blend of residential, commercial, and recreational uses. This mixed-use approach fosters vibrant street life, enhances economic vitality,

and ensures that amenities and services are conveniently accessible to residents and visitors alike.

- **Activation of Street Edges for a 24/7 CBD:**
 - Ensuring that building frontages along streets are designed to promote active, engaging, and safe environments throughout the day and night. This includes retail shops, cafes, and other businesses that animate the street, contributing to a lively and secure public realm.
- **Integration of Harmonious Infill Development:**
 - Encouraging infill projects that respect the existing urban context and architectural heritage while adding density and diversity to the CBD. Infill development should enhance the streetscape, offer additional housing and commercial opportunities, and contribute to the overall aesthetic and functional coherence of the area.
- **Expansion of Diverse Public Services:**
 - Enhancing the provision of a wide range of public services, including educational facilities, healthcare, green spaces, and cultural institutions. A diverse array of services supports the needs of a varied population, enriches the community, and attracts a broad demographic to live, work, and play in the CBD.

By prioritizing these key elements, the improvement projects can significantly contribute to transforming the CBD into a dynamic, inclusive, and sustainable urban centre that meets the needs of its current and future residents and stakeholders.

This chapter outlines a holistic approach to integrate these elements, aiming to create a vibrant and safe public realm. Subsequent sections will delve into the scrutiny of each precinct, identifying existing elements and proposing strategic additions to guide future investments and developments. The following section will provide a detailed example, offering insights into the proposed development within one of these strategic precincts.

13.2 PRECINCT STRUCTURING ELEMENTS

The vibrancy and functionality of a Central Business District (CBD) are underpinned by a comprehensive suite of urban structuring elements. These elements are critical in weaving together the urban fabric, creating a high-quality environment that bolsters economic growth, community interaction, and an enhanced urban lifestyle. The following components are essential in the sustainable development and transformation of the CBD into a lively and dynamic nucleus:

- **Civic and Cultural Nodes:**
 - These are focal points within the CBD, characterized by public open spaces that are poised for refinement through targeted improvement projects. These nodes act as platforms for cultural expression and civic engagement, enriching the urban experience and fostering community identity.
- **Primary Axis:**
 - These are the lifelines of the CBD, corridors pulsating with economic, social, and cultural activities. Key streets such as Thabo Mbeki Street, Grobler Street, Landros Mare Street, Market Street, and Rissik Street serve as major transit and pedestrian thoroughfares, channeling development and activity through the heart of the city.
- **Mixed-Use Residential:**
 - This element focuses on the revitalization and densification of residential areas within the CBD, promoting a blend of social and affordable housing options. The aim is to foster a diverse, inclusive community that benefits from close proximity to urban amenities and services.
- **Public Transport Circuit:**
 - Designed to alleviate traffic congestion along critical arteries such as Landros Mare, Market, and Rissik Streets, the circuit encourages the redirection of traffic to parallel routes. Strategic placement of transit stops and lay-bys ensures that these alternative pathways remain interconnected with the main activities along the Primary Axes, enhancing accessibility and pedestrian mobility.
- **The Natural Environment:**

- The greenbelt and other open spaces constitute a vital physical and aesthetic asset in the CBD. These areas offer a natural counterbalance to the built environment, providing serene spaces for recreation, relaxation, and environmental sustainability.

In addition to the foundational urban elements previously outlined, the following components are integral to the multifaceted development of the CBD, ensuring its transformation into a vibrant, accessible, and sustainable urban center:

- **Retention of Government and Municipal Services:**
 - Maintaining a strong presence of government and municipal services within the CBD is essential. Their accessibility bolsters the convenience and efficiency for residents and businesses, anchoring essential functions and services within the urban core to prevent their migration to peripheral areas.
- **Day and Night Street Markets:**
 - The introduction of vibrant day and night street markets injects life into the CBD beyond traditional business hours. These markets serve as hubs of economic and social interaction, drawing both locals and visitors into the heart of the city. The diverse array of goods and services available fosters a lively urban atmosphere, contributing significantly to the city's cultural and economic dynamism.
- **Cultural and Public Open Spaces:**
 - Crafting spaces dedicated to cultural events, public gatherings, and recreational activities is vital for nurturing community bonds and cultural identity. These spaces offer venues for artistic expression, social interaction, and communal engagement, enriching the urban experience and fostering a sense of belonging among residents.
- **Parks and Recreation Spaces:**
 - The integration of parks, greenbelts, and recreational facilities within the urban fabric is crucial for promoting well-being and a balanced lifestyle. These green spaces provide a sanctuary from the urban pace, offering residents and visitors alike a place for relaxation, exercise, and connection with nature, thereby enhancing the overall quality of urban life.

Integrating these key structuring elements is instrumental in crafting a CBD that not only thrives as a commercial and financial epicentre but also promotes a rich community life, cultural vibrancy, and sustainable urban living. The subsequent section will delve into the application of these elements within individual precincts, outlining how their strategic incorporation is crucial for crafting a safe, engaging public realm. This entails identifying existing urban features within each precinct and offering targeted recommendations at pivotal locations to steer future investments and developments effectively.

13.3 IDENTIFYING THE PRECINCTS

Refer to Diagram 98: Identifying the Precincts

The precincts identified for further detailed design include:

1. **Northern Civic & Cultural Node:**
 - Serving as a gateway for the CBD, this node aims to enhance access to the CBD, identify infill opportunities, and improve pedestrian access.
2. **Southern Civic & Cultural Node:**
 - The park has experienced some decline, with development and parking encroaching into the area. To address this, the plan focuses on enhancing the park, improving its interface with neighbouring buildings, and upgrading pedestrian access. Improving the building relationship to the park is expected to enhance the overall quality of building investment.
3. **Primary Axes – CBD Upgrades and densification focus area:**
 - Although the streets are well-maintained, there is a proposal to upgrade them to enhance the overall environment, improve pedestrian safety, and create a more vibrant, clean, and safe public space.
4. **Mixed-Use Residential and Transport Precinct – Rissik Street Gateway:**
 - The bus station is large in extent and underutilized, creating a transport-oriented node. Transforming this area would improve residential spaces in well-located areas.
5. **Mixed-Use Residential and Transport Precinct:**

- This area is undergoing transition, with residential sites converting to boarding houses. This has resulted in strain on infrastructure and a decline in the neighbourhood's quality, creating an unsafe feeling. The plan proposes investment in well-designed units and densification to improve the overall quality of the neighbourhood.
6. **The Mixed-use Residential Densification Precinct:**
- Well-located sites near the CBD are identified for densification. Sites along the Sandriver/Sterkloop tributary could be better designed to maximize safety through buildings facing onto the park and providing views onto the park.

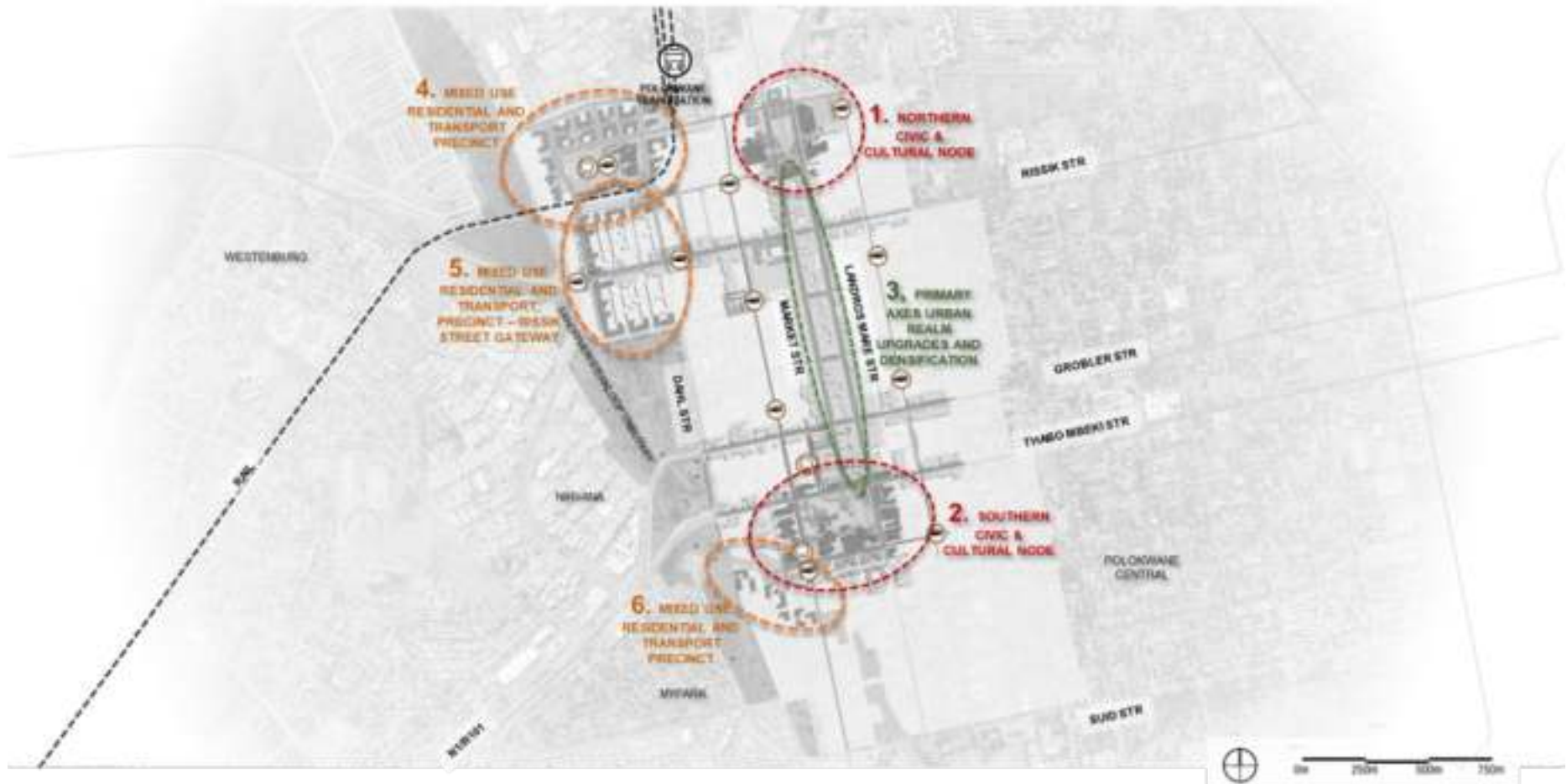


Diagram 98: Identifying the Precincts

13.4 PRECINCT 1

Refer to:

Diagram 99: Precinct 1 - Status Quo

Diagram 100: Precinct 1 - Development Proposal Plan

Diagram 101: Precinct 1 – Development Proposal

Diagram 102: Precinct 1 – Built Form

13.4.1 STATUS QUO

Challenges:

- Hindered access due to high mobility routes.
- Lack of appeal as a gateway space.
- Safety concerns from long crossing distances.
- Disconnected orientation of nearby buildings.
- Undefined park-edges from undeveloped sites.

Needs Assessment:

- Connectivity:
 - Realign building entrances for better park integration.
- Accessibility:
 - Redesign surrounding routes for easier access.
 - Enhance Park pathways with attractive crossings.
- Safety:
 - Implement features to shorten crossing distances.
- Development:
 - Develop vacant areas to enhance park usage.
- Park Edges:
 - Activate edges with engaging designs and accessible features.

13.4.2 DEVELOPMENT PROPOSAL AND DESIGN DIRECTIVES

The northern gateway of the CBD, centered around SABC Park, serves as a key cultural and civic area, shaped by its surrounding activities and the

interaction of its institutional and commercial borders. Key initiatives to enhance this gateway include:

- Implementing traffic calming and prioritizing pedestrians around the park.
- Encouraging dense development at the park's edges to bolster its role as a civic and cultural hub.
- Introducing a landmark building to define the northern entrance of the CBD.
- Upgrading the public space with enhanced security, lighting, comfortable seating, refreshment zones, and green areas for community gatherings.
- Engaging nearby institutions to participate in and support the park's development as a central cultural and civic space.

13.4.3 LAND USE AND ACTIVITY PATTERN

Refer to:

Table 5: Land use and Development Intent per Precinct for land use details and maximize intensity in the gateway.

Diagram 101: Precinct 1 –

- **Mixed-Use Civic Hub and Flexible Zoning:**
 - Establish adaptable zoning regulations to accommodate changing community needs and emerging urban development trends. Incorporating a mix of government, retail, offices, and residential spaces that frame the gateway park.
 - Promote a landmark gateway building overlooking the park.
 - Encourage night-time economy activities for enhanced vibrancy, promoting apartments, student residences, cafes, and restaurants.
 - Enhance market opportunities for the fresh produce market.
- **Infill Development:**
 - Support infill development, introducing new buildings on underutilised sites, specifically the TUT site and hospital site, new constructions can offer a mix of offices, apartments, or civic functions.

- Promote and support additional storeys above existing low-intensity buildings, such as big-box retail. These added storeys can offer apartments above shops, creating a mix of retail, offices, residential, and government uses.
- **Green/Open Spaces and Connectivity:**
 - Ensure developments include green spaces, pedestrian pathways, and amenities for resident quality of life.
 - Transform the park into a vibrant recreational area, promoting hosting outdoor events, with a stronger relationship with neighbouring buildings.
- **Transport:**
 - Introduce public transport options, prioritizing safety and accessibility, introducing a public transport facility and public transport circuit that borders the precinct.
 - Implement bicycle lanes and prioritize pedestrians through pedestrian-friendly pathways and crossings at main desire lines, especially along the mobility routes of Market, Hospital and Landros Mare.
- **Infrastructure Improvements:**
 - Design infrastructure for incremental upgrades, including water supply, sewage, and utilities, to support current and future needs while minimizing environmental impact.

13.4.4 PROPERTY MARKET

Precinct 1, positioned as the Northern Civic and Cultural Node of the CBD, presents a strategic blend of property opportunities and development potentials that align with its unique positioning as the gateway to the urban core. This precinct stands out due to its prime location, excellent accessibility, high visibility, and the presence of underutilized land and properties alongside significant park areas and institutional tenants. The future of Precinct 1 is envisioned through a series of targeted development initiatives that leverage these unique characteristics to foster a vibrant, multifaceted urban environment.

PROPERTY MARKET OPPORTUNITIES:

- **CBD Entrance:** Capitalizes on its role as the primary entry point to the CBD, offering unique opportunities for landmark developments and gateway structures.
- **Accessibility & Visibility:** The area's excellent accessibility and high visibility make it an attractive location for high-impact projects and investments.
- **Underutilized Spaces:** The abundance of underutilized land and properties presents opportunities for redevelopment, densification, and the introduction of new uses.
- **Major Park Areas:** The presence of significant green spaces offers a foundation for creating themed and celebrated park environments that enhance public life and attract visitors.
- **Institutional Presence:** The proximity to key institutional tenants provides a stable anchor for the precinct and opportunities to strengthen educational and cultural clusters.

DEVELOPMENT POTENTIALS:

- **Strengthening the Educational Cluster:**
 - Expansion of tertiary institutions like the TUT campus, coupled with the development of student accommodation and a diverse range of educational offerings, from medical and business schools to vocational training colleges.
 - Introduction of support facilities that cater to the daily needs and lifestyle of students, including retail, food, entertainment, and wellness services.
- **Value Shopping Reinforcement:**
 - Enhance pedestrian and vehicular connectivity between major retail centers, expanding the range of value shopping options with a focus on factory shops, theme-based outlets, and food services.
 - Consider the strategic expansion of retail spaces and the introduction of new food outlets in visible locations to attract both locals and visitors.
- **Themed/Celebrated Park Environment:**
 - Upgrade and develop the park areas into a major urban attraction with a focus on design, safety, and functionality to ensure daily usage and tourist appeal.

- Introduce thematic elements, such as a musical theme with statues, an open-air amphitheater, children's play areas, and spaces for regular music events, enhancing the cultural vibrancy of the precinct.
- **Iconic Gateway Buildings and Tenants:**
 - Leverage the strategic location at the CBD entrance to develop iconic gateway buildings that make a bold architectural statement and house significant tenants.
 - Explore high-profile uses for these buildings, such as governmental functions, international convention centers, or major cultural attractions, to anchor the precinct's identity and draw.

By capitalizing on these property market opportunities and development potentials, Precinct 1 is poised to transform into a dynamic and integrated part of the CBD, where educational, retail, cultural, and recreational functions converge and create a lively urban district. This comprehensive approach to development will not only enhance the precinct's role as the northern gateway to the CBD but also contribute to the broader vision of a vibrant, accessible, and sustainable urban center.

13.4.5 THE NATURAL ENVIRONMENT

- With the development of the Civic Park the northern section of the park will require development as a recreational public space i.e. benches, walkways, lighting etc. Currently it is difficult to access and therefore pedestrian access needs to be accommodated at the intersections. Celebrate the historic train as a local landmark and feature. The furthestmost public space should be left as a natural space (with existing trees) that could be enhanced with further landscaping. Use of indigenous vegetation for beautification and ecological functioning.
- Develop a strategy focusing on ongoing maintenance and sustainability to ensure the success of the beautification and redevelopment of the Precinct. Enforcement is key as littering and pollution is a significant problem in Polokwane.
- Increased litter/ waste pick-up to ensure that waste/ litter does not overflow on the street with some ending up in the stormwater

system resulting in blockages and polluting the rivers. Sufficient waste bins/ receptacles available in open spaces.

- Public furniture should be locally sourced and supplied to provide economic opportunities for the local community and to strengthen local ties with the space and increased usage and value.
- Stormwater interventions that do not put increased burden on the existing infrastructure.

13.4.6 CIVIL ENGINEERING: WATER, SANITATION AND STORMWATER

- **Water Supply** – There is ample existing water network in Precinct 1 with:
 - a 150mm dia and a 225mm dia pipes along Market St
 - a 225mm dia and a 300mm pipes along Landdros Mare St
 - a 225mm and a 250mm dia along Hospital St.
- The impact of additional demand should still be checked against available capacity prior to developments in line with CoP policies and bulk service contributions.
- **Sanitation** - The sewer network is consistent and fully covers the areas in Precinct 1. However, the impact of additional discharges should still be checked, and upgrades implemented where required in line with CoP policies and bulk service contributions.
- **Stormwater** - The stormwater network is consistent in Precinct 1, with a 900mm dia pipe along Landros Mare street, 600mm to 900mm dia pipes along Excelsior Street. Implement Sustainable Urban Drainage (SUD) and Green Stormwater Infrastructure (GIS) principles.
- The vacant/ underused site close to TUT and the Correctional Services are currently vegetated land. Increased surface run off from new developments should be calculated and catered for as per Municipal Stormwater Management policies and processes.

13.4.7 ELECTRICAL ENGINEERING

- **Renewable Energy:**
 - Review, maintain and extend the support for renewable energy uptake.
 - To mitigate and reduce the effects of loadshedding, explore the option of entering into a Power Purchase Agreement (PPA) for a utility scale renewable energy plant for dispatchable power with an Independent Power Producer (IPP).
- **Public Lighting:**
 - Intensify the use of energy efficient lighting installations for lighting throughout the precinct especially along the streets and in the public spaces (SABC/Civic Park and other parks to the north).
- **Demand Side Management:**
 - Review and enhance building regulations in terms of energy efficiency e.g. limits to resistive heating.
- **Network Operations:**
 - Restore the supervisory control and data analysis system (SCADA). This is to ensure the accurate capturing of demand and spare capacity, assist in fault finding and a quicker restoration of power during outages.
- **Network Capacity**
 - Study the available capacity along the electrical network. It is initially estimated that there is approximately 15% spare although detailed analysis is required, especially if a large-scale intervention is proposed (such as the Limpopo Provincial Legislature complex).
- **Bulk Supply**
 - There is an overall installed capacity of 280MVA with a demand of 180MVA. A detailed study is required to determine future expansion in capacity, especially at Epsilon and Beta substations for the CoP.

13.4.8 TRAFFIC AND TRANSPORT

- One of the main risks associated with creating a civic and cultural node in the CBD is traffic congestion and potential disruption. This may happen due to increased pedestrian foot traffic, temporary road closures for cultural events, or parking restrictions. It is crucial to implement effective traffic management strategies to minimize disruptions and ensure smooth traffic flow.
- The creation of additional public transport facilities in an area already having two existing facilities within 1 kilometer may not be supported. It is recommended to implement a low-cost public transport facility such as lay-by.
- This area is not known to generate high public transport vehicles. The presence of multiple public transport facilities in proximity can lead to competition for passengers and revenue.
- It is recommended that the Limpopo Provincial Legislature move to the south as opposed to where it is now.



Diagram 99: Precinct 1 - Status Quo

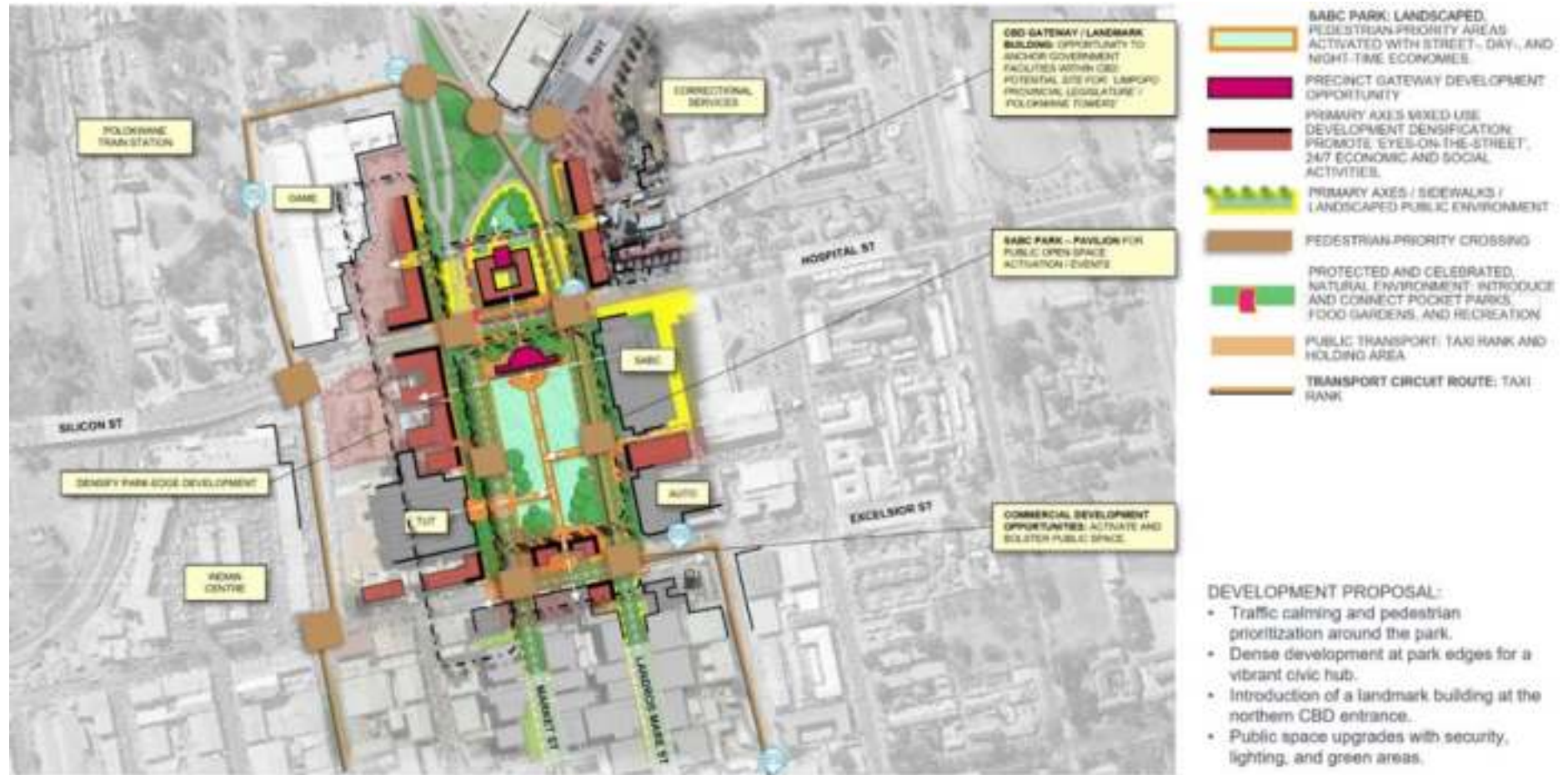
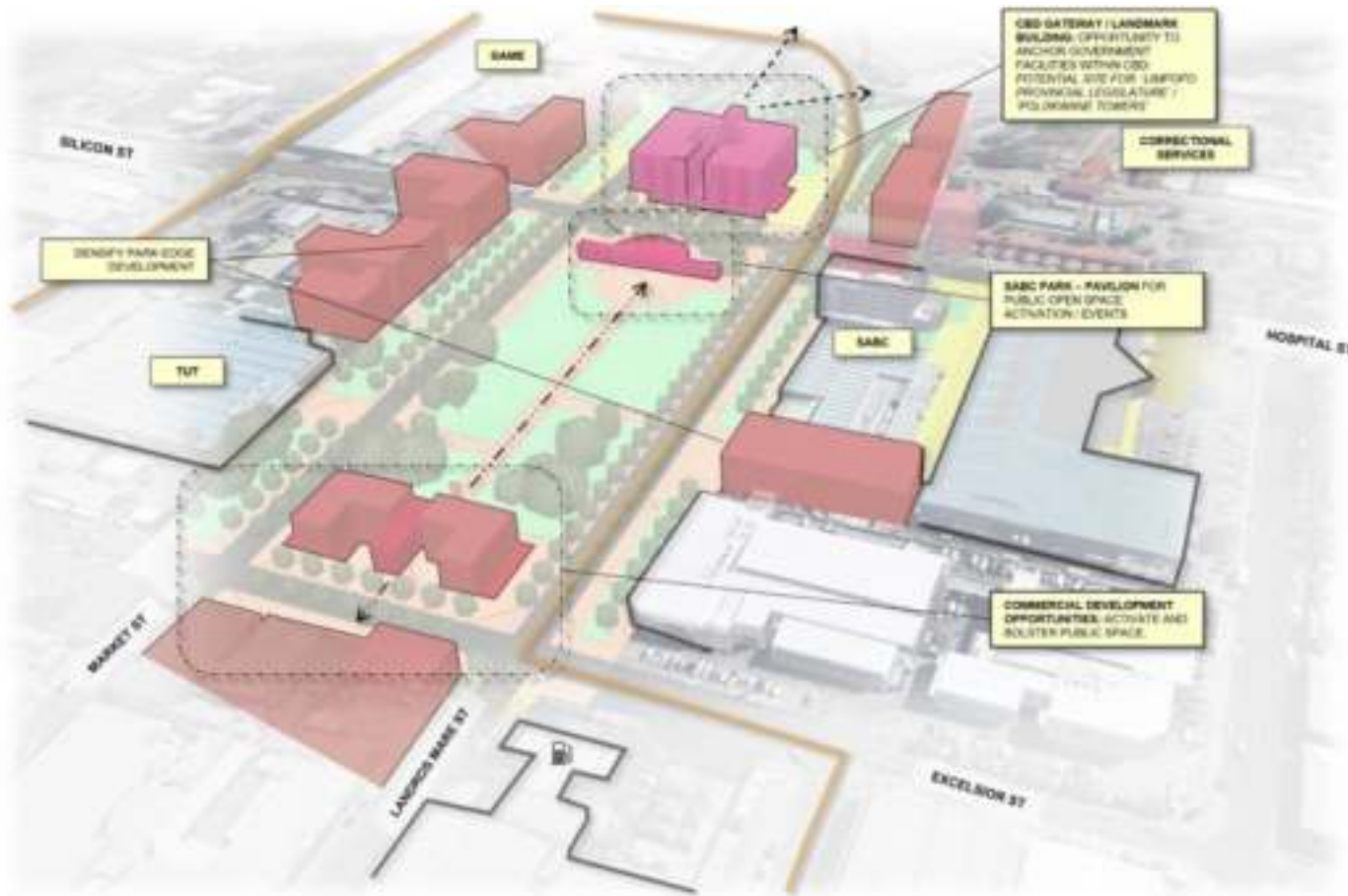


Diagram 100: Precinct 1 - Development Proposal Plan



LAND USE AND ACTIVITY PATTERN

- Mixed-use civic hub with flexible zoning for diverse urban development.
- Infill development on underutilized sites for a dynamic urban mix.
- Enhanced green/open spaces for quality of life.
- Improved transport with public transport options and pedestrian-friendly infrastructure.

PROPERTY MARKET OPPORTUNITIES

- Leverage CBD entrance for landmark developments.
- Capitalize on underutilized spaces for redevelopment and densification.
- Enhance major park areas as urban attractions.
- Strengthen educational and cultural clusters near institutional tenants.

NATURAL ENVIRONMENT

- Develop northern park section for recreation.
- Implement sustainable maintenance and beautification.
- Increase litter/waste management and stormwater interventions.

Diagram 101: Precinct 1 – Development Proposal



Diagram 102: Precinct 1 – Built Form

13.5 PRECINCT 2

Refer to:

Diagram 103: Precinct 2: Civic/ Cultural Node, Civic Park – Status Quo

Diagram 104: Precinct 2: Civic/ Cultural Node, Civic Park – Development Proposal Plan

Diagram 105: Precinct 2: Civic/ Cultural Node, Civic Park – Development Proposal

Diagram 106: Precinct 2 – Built Form

13.5.1 STATUS QUO

Challenges:

- Underutilized spaces reducing area vibrancy.
- Encroachment diminishing park appeal.
- Missed opportunities for development.
- Pedestrian access hindered by informal taxi ranks and congestion.

Opportunities:

- Revitalization:
 - Transform underutilized park buildings for economic diversity.
 - Innovate parking solutions to enhance urban space utility.
- Accessibility:
 - Reorganize taxi ranks and address congestion for better pedestrian flow.
 - Remove barriers for seamless park access.
- Economic Activation:
 - Initiate night-time activities to energize the precinct after dark.
- Heritage and Reuse:
 - Preserve heritage structures to maintain cultural identity.
 - Repurpose vacant buildings for added functionality.
- Community Engagement:
 - Involve local community and stakeholders in development plans.
- Site Development:

- Develop vacant sites, particularly south of the park, to improve precinct appeal and functionality.

13.5.2 Development Proposal and Design Directives

The development plan for Precinct 2 aims to leverage the area's potential by enhancing the public realm and fostering both economic and social advancements. The strategy includes:

- Implementing traffic calming on streets adjacent to the park to enhance accessibility.
- Converting parking areas into multi-functional squares for daily parking and hosting events in the evenings and weekends.
- Promoting denser development around the park to increase available commercial space.
- Stimulating economic activity in underused buildings by encouraging a mix of uses that cater to both day and night-time economies.
- Upgrading the Thabo Mbeki Street taxi rank into a modern facility with amenities, integrating it into the broader public transport network.

13.5.3 LAND USE AND ACTIVITY PATTERN

- **Mixed-Use Civic Hub:**
 - Adapt zoning to support a diverse urban mix, including government, retail, office, and residential uses, fostering a dynamic night-time economy.
- **Infill and Height Additions:**
 - Promote development on unused plots with a variety of urban functions, increasing density and enhancing the precinct's functionality.
- **Green/Open Spaces and Connectivity:**
 - Incorporate greenery and walkable routes in all new developments to improve recreational spaces and the overall aesthetic.

- **Transport:**
 - Expand public transport facilities, bike lanes, and pedestrian paths to improve safety and encourage eco-friendly transportation.
- **Infrastructure Improvements:**
 - Gradually upgrade infrastructure to meet growing demands while ensuring environmental sustainability and resilience.

13.5.4 PROPERTY MARKET

PROPERTY OPPORTUNITIES:

- **Government Sector as Major Tenants:**
 - The presence of strong government tenants offers stable and significant leasing opportunities, anchoring the precinct's economic base.
- **Large Civic Park:**
 - A substantial green space that not only enhances the precinct's aesthetic and environmental appeal but also serves as a potential venue for community events and activities, increasing foot traffic and public engagement.
- **Expansive Open Parking Areas:**
 - These areas present opportunities for redevelopment into more valuable uses, such as commercial, residential, or mixed-use buildings, contributing to the precinct's densification and vibrancy.
- **High-Quality Office Environment:**
 - The existing high-calibre office spaces attract professional services and businesses, contributing to the precinct's economic diversity and dynamism.

FUTURE DEVELOPMENT POTENTIAL:

- **Civic Park Redevelopment:** Aiming to transform the park into a major urban attractor that boosts visitor numbers and stimulates a wide range of economic activities, including:
 - Day and nighttime events that draw both locals and tourists.
 - Enhanced tourist services and accommodations to support increased visitation.

- Diverse dining options through restaurants and food plazas.
- Vibrant markets and entertainment options that cater to a wide audience.
- Niche micro retail facilities that add unique shopping experiences.

NEW LOCAL MUNICIPAL BUILDINGS (MIXED-USE DEVELOPMENT):

- **Polokwane Towers:**
 - Envisioned as a landmark project, integrating seamlessly with the park and its surroundings to create a focal point within the precinct.
 - This mixed-use development will include amenities such as ample parking, tourist accommodations, dining options, entertainment venues, and retail spaces, thereby enriching the precinct's urban fabric and service offerings.
- **Strengthening the Government Services Sector:**
 - Utilizing underused parking areas for the expansion of government offices, enhancing the precinct's role as a key administrative hub.
 - Encouraging mixed-use developments that provide economic stability and diversity, further bolstering the precinct's attractiveness for both public and private investments.
 - The potential expansion of provincial government facilities within the CBD, affirming the precinct's status as a critical center for governmental activities and services.

Through strategic development and leveraging the unique opportunities within Precinct 2, the aim is to foster a vibrant, mixed-use urban environment that balances civic, cultural, commercial, and recreational uses, thereby enhancing the precinct's role as a southern gateway and vital node within the Polokwane CBD.

13.5.5 THE NATURAL ENVIRONMENT

- **Civic Park Upgrades:**
 - Further development and enhancement of the Civic Park to bolster its role as a key recreational and public space within the precinct.

- **Environmental and Health Concerns:**
 - Addressing the significant environmental and health concerns posed by informal trading and littering, particularly around fresh produce stalls, through improved waste management and sustainable practices.
- **Indigenous Vegetation and Public Furniture:**
 - Utilizing indigenous vegetation for beautification and ecological benefits, and sourcing public furniture locally to foster community ties and economic opportunities.

13.5.6 CIVIL ENGINEERING: WATER, SANITATION, AND STORMWATER

- **Comprehensive Water and Sanitation Network:**
 - Ensuring the existing water and sewer networks can support additional demand with necessary upgrades as per requirements.
- **Sustainable Stormwater Management:**
 - Implementing Sustainable Urban Drainage and Green Infrastructure principles to effectively manage increased runoff without overburdening existing infrastructure.

13.5.7 ELECTRICAL ENGINEERING

- **Renewable Energy Initiatives:**
 - Expanding support for renewable energy to mitigate load shedding impacts and promote sustainability.
- **Enhanced Public Lighting:**
 - Intensifying the use of energy-efficient lighting throughout the precinct to improve safety and visibility.
- **Network Capacity and Operations:**
 - Ensuring the electrical network has adequate capacity for future developments and restoring network operations to enhance reliability and efficiency.

13.5.8 TRAFFIC AND TRANSPORT

- **Efficient Road Network Design:**
 - Incorporating a comprehensive road network design to facilitate efficient movement of vehicles and pedestrians, promoting sustainable transportation modes, and addressing parking requirements strategically to reduce congestion and enhance accessibility.

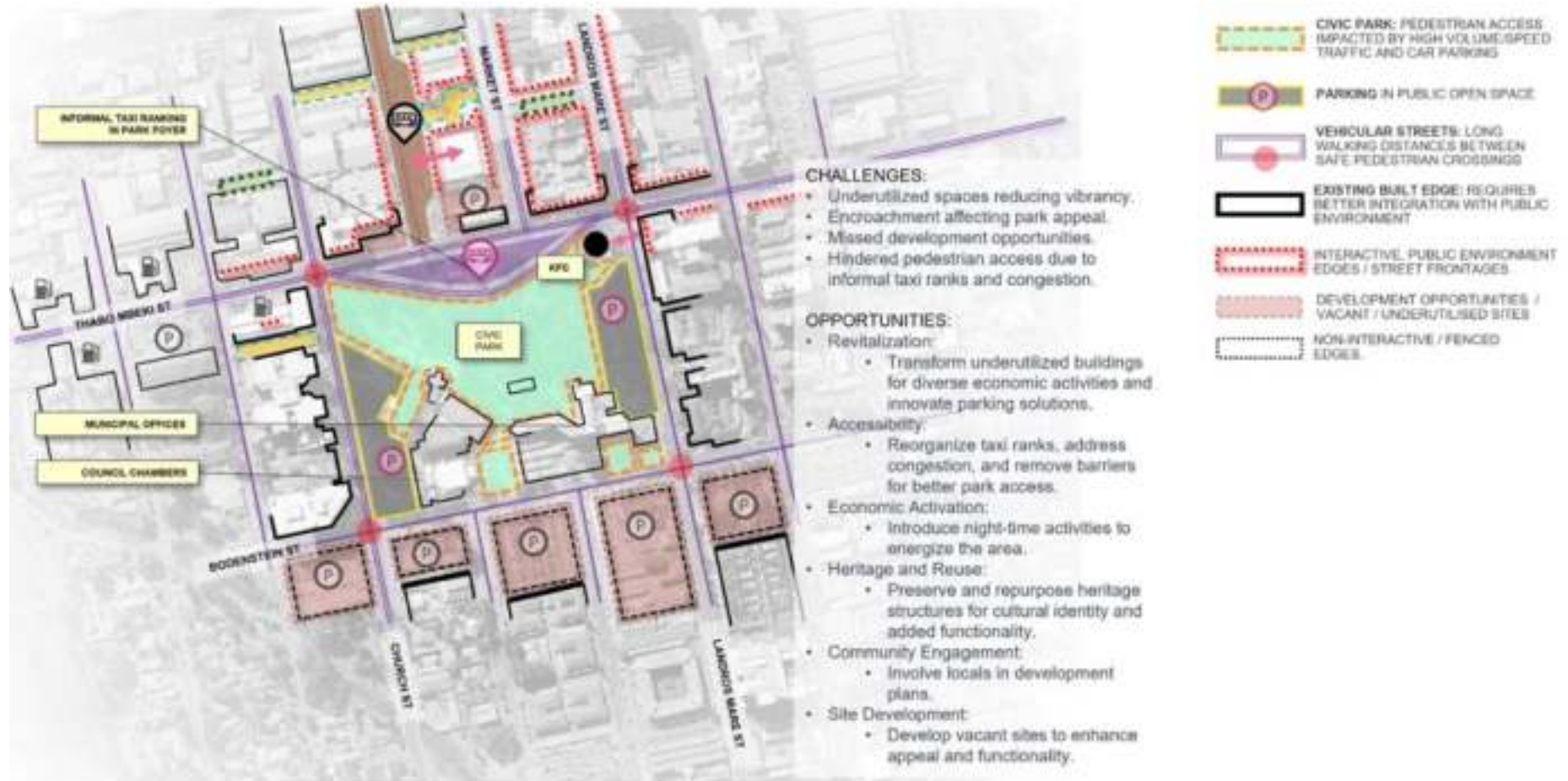


Diagram 103: Precinct 2: Civic/ Cultural Node, Civic Park – Status Quo



Diagram 104: Precinct 2: Civic/ Cultural Node, Civic Park – Development Proposal Plan



LAND USE AND ACTIVITY PATTERN

- Adapt zoning for mixed-use hub to boost night-time economy.
- Promote infill development for increased density and functionality.
- Ensure new developments have green spaces and walkable paths.
- Expand public transport, bike lanes, and pedestrian paths.
- Upgrade infrastructure sustainably to support growth.

PROPERTY MARKET OPPORTUNITIES

- Utilize government tenants for economic stability.
- Host community events in Civic Park to boost engagement.
- Redevelop parking areas for mixed-use to enhance density.
- Attract professionals with quality office spaces for diversity.

FUTURE DEVELOPMENT POTENTIAL

- Transform Civic Park into a vibrant urban center with diverse activities.
- Develop Polokwane Towers as a landmark mixed-use project.
- Expand government offices, promoting mixed-use for precinct vitality.

NATURAL ENVIRONMENT

- Upgrade Civic Park for enhanced recreation.
- Tackle environmental issues with better waste management.
- Use indigenous vegetation and local public furniture for community benefits.

Diagram 105: Precinct 2: Civic/ Cultural Node, Civic Park – Development Proposal



Diagram 106: Precinct 2 – Built Form

13.6 PRECINCT 3

Refer to:

Diagram 107: Precinct 3 – Status Quo

Diagram 108: Precinct 3 – Development Proposal Plan

Diagram 109: Precinct 3 – Development Proposal

Diagram 110: Precinct 3 – Built Form

13.6.1 STATUS QUO

Challenges:

- Pedestrian safety compromised by high-speed traffic and congestion.
- Frequent traffic congestion exacerbated by on-street parking and bus/taxi stops.
- Cluttered sidewalks due to unregulated street trade and excessive signage.

Opportunities:

- Accessibility and Movement:
 - Widen sidewalks on Primary Axes for improved universal access and street trade accommodation.
 - Develop pedestrian-friendly connections between Market and Landros Mare Streets.
- Traffic and Parking:
 - Redirect parking to quieter east-west streets to reduce congestion on main arteries.
- Public Realm Enhancement:
 - Upgrade sidewalk quality with better paving, lighting, and street furniture.
 - Introduce pocket parks and green spaces on underutilized plots to enhance urban aesthetics.
- Economic Vitality:
 - Foster active commercial fronts along Primary Axes to support a lively day and night-time economy.
- Urban Density:

- Seize densification opportunities, particularly on large parking areas like the Limpopo Mall site, to increase urban density and vibrancy.

13.6.2 DEVELOPMENT PROPOSAL AND DESIGN DIRECTIVES

For Precinct 3, the development strategy aims to enhance accessibility, safety, and urban vitality along its main thoroughfares. Key initiatives include:

- Widening sidewalks along the Primary Axes to support diverse movements and street trade, ensuring universal accessibility.
- Redirecting parking to quieter east-west streets and those parallel to the Primary Axes to ease congestion.
- Beautifying the Primary Axes' sidewalks with greenery and urban furniture like lighting, seating, and drinking fountains to enhance user comfort and safety.
- Promoting pedestrian pathways in mid-block open spaces linking Market and Landros Mare Streets to improve connectivity.
- Encouraging the creation of pocket parks in vacant or underused areas and in spaces where buildings are set back from the street, adding green spaces within the urban fabric.
- Activating the edges along the Primary Axes with vibrant day and night-time economic activities to foster a lively, round-the-clock CBD environment.
- Leveraging the Limpopo Mall parking area's strategic location for potential densification and intensification projects, contributing to the precinct's growth and dynamism.

13.6.3 LAND USE AND ACTIVITY PATTERN

The anticipated land use and activity pattern for Precinct 3 include:

- **Mixed-Use and Flexible Zoning:**
 - Establish adaptable zoning regulations accommodating retail, offices, and residential spaces, encouraging night-time economy activities.

- **On-Street Trade:** Allow for on-street trade in specific areas, promoting markets and introducing amenities such as ablutions and pisseoirs.
- **Infill and Height Additions:**
 - **Support Infill:** Introduce new buildings on underutilized and vacant sites along Market and Landros Mare streets, offering a mix of offices, apartments, and mixed-use developments.
 - **Height Additions:** Promote additional storeys above existing low-intensity buildings, specifically value marts and shopping centres, creating a mix of retail, offices, residential, and government uses.
- **Green/Open Spaces and Connectivity:**
 - **On-Street Parklets:** Promote on-street parklets along the main routes, allowing for popup shops, restaurants, and cafes to function from, and allowing for seating and greening.
 - **Pedestrian Arcades:** Convert alleys into a network of pedestrian arcades, where shops and businesses can expand into.
 - **Public Squares:** Introduce public squares, where increased buildings heights and building access, and shopfronts can be established.
- **Transport:**
 - **Public Transport Options:** Introduce public transport options, bicycle lanes, and pedestrian-friendly pathways, prioritizing safety and accessibility to key activities and public transport routes.
- **Infrastructure Improvements:**
 - Gradually upgrade infrastructure to meet growing demands while ensuring environmental sustainability and resilience.

13.6.4 PROPERTY MARKET

PROPERTY OPPORTUNITIES:

- **Vibrant Retail Sector:**
 - Characterized by low vacancy rates, indicating a healthy demand for retail spaces and opportunities for new entrants or expansion of existing businesses.

- **High Traffic Volumes:**
 - The area benefits from significant pedestrian and vehicular traffic, enhancing the visibility and accessibility of businesses, particularly those at the ground level.
- **Optimal Ground Floor Visibility:**
 - Ground-level units enjoy excellent visibility, making them ideal for retail, cafes, and other businesses that benefit from street-level engagement.
- **Established Educational Cluster:**
 - The presence of educational institutions creates a stable and growing demand for various services, supporting a vibrant community of students and staff.

FUTURE DEVELOPMENT POTENTIAL:

- **Retail Redevelopment:**
 - Transform large vacant premises into spaces for small or micro traders, diversifying the retail mix and enhancing the shopping experience.
 - Consider themed redevelopments, such as districts focused on fashion, electronics, or food, to create destination areas within Precinct 3.
 - Enhance pedestrian interaction and accessibility, making the retail environment more inviting and user-friendly.
- **Education Cluster Development:**
 - Support the expansion of educational offerings to include a broader range of institutions, such as medical campuses, business schools, and vocational training colleges, catering to diverse student needs and interests.
 - Develop support facilities that cater to the lifestyle of students and faculty, including leisure, retail, food, and entertainment options, enriching the campus life experience.
- **Conversions to Residential:**
 - Repurpose underperforming office spaces, particularly those above street level, into residential accommodations, targeting students, singles, and young couples with affordable rental options.

- Embrace mixed-use developments that combine residential units with retail, entertainment, or educational facilities, fostering vibrant and integrated living spaces.
- **Activating the Night-Time Economy:**
 - Host regular cultural and entertainment events, such as shows, performances, and markets, to draw visitors and locals during the evening hours.
 - Introduce entertainment venues, including cinemas, theaters, and live music spots, to create a lively nighttime atmosphere and extend the precinct's activity hours.
- **Support Sidewalk Economy:**
 - Allocate designated areas for hawkers and street vendors, integrating informal trading into the urban fabric while maintaining an organized and accessible public realm.
 - Enhance the walking environment with improvements such as better seating, ablution facilities, and delineated spaces for entertainers and buskers, encouraging continuous street-level activity and engagement.

By capitalizing on these property opportunities and harnessing the future development potential, Precinct 3 can evolve into a dynamic and densely populated urban area. The strategic focus on retail revitalization, educational expansion, residential conversions, nighttime economy activation, and sidewalk economy support will collectively contribute to a vibrant, inclusive, and sustainable urban environment.

13.6.5 THE NATURAL ENVIRONMENT

- Informal trading in the CBD contributes significantly to litter raising environmental and health concerns around the fresh produce stalls. The stalls often take up the entire sidewalk forcing pedestrians into the street.
- Develop a strategy focusing on ongoing maintenance and sustainability to ensure the success of the beautification and redevelopment of the Precinct. Enforcement is key as littering and pollution is a significant problem in Polokwane.

- Increased litter/ waste pick-up to ensure that waste/ litter does not overflow on the street with some ending up in the stormwater system resulting in blockages and polluting the rivers.
- Sufficient waste bins/ receptacles available in open spaces.
- Use of indigenous vegetation for beautification and ecological functioning.
- Public furniture should be locally sourced and supplied to provide economic opportunities for the local community and to strengthen local ties with the space and buy-in.
- Stormwater interventions that do not put increased burden on the existing infrastructure.

13.6.6 CIVIL ENGINEERING: WATER, SANITATION AND STORMWATER

- **Water Supply:**
 - The water network is consistent and fully covers the areas in Precinct 3, with 150mm dia and a 300mm dia pipes along Rissik Street. The impact of additional demand should still be checked, and upgrades implemented where required.
- **Sanitation:**
 - The sewer network is consistent and fully covers the areas in Precinct 3. However, the impact of additional discharge should still be checked, and upgrades implemented where required.
- **Stormwater:**
 - The stormwater network is consistent in Precinct 3, with an 825mm dia pipe along Rissik Street. Implement Sustainable Urban Drainage (SUD) and Green Stormwater Infrastructure (GIS) principles.

13.6.7 ELECTRICAL ENGINEERING

- **Renewable Energy:**
 - Review, maintain and extend the support for renewable energy uptake.
 - To mitigate and reduce the effects of loadshedding, explore the option of entering into a Power Purchase Agreement (PPA) for

a utility scale renewable energy plant for dispatchable power with an Independent Power Producer (IPP).

- **Public Lighting:**
 - Intensify the use of energy efficient lighting installations for lighting throughout the precinct.
- **Demand Side Management:**
 - Review and enhance building regulations in terms of energy efficiency e.g. limits to resistive heating.
- **Network Operations:**
 - Restore the supervisory control and data analysis system (SCADA). This is to ensure the accurate capturing of demand and spare capacity, assist in fault finding and a quicker restoration of power during outages.
- **Network Capacity:**
 - Study the available capacity along the electrical network. It is initially estimated that there is approximately 15% spare although detailed analysis is required.
- **Bulk Supply:**
 - There is an overall installed capacity of 280MVA with a demand of 180MVA. A detailed study is required to determine future expansion in capacity, especially at Epsilon and Beta substations for the CoP.

13.6.8 TRAFFIC AND TRANSPORT

- Although the development focus is on the N-S axes (Landros Mare and Market Streets), further consideration needs to be given to Devenish Street, which runs south of Limpopo Mall. Public transportation is available on this street.
- There is on-street parking, informal trading, many pedestrians, and a main route to the commercial/ industrial area adjacent to Nirvana.
- Pedestrians are walking into the road due to the informal traders taking over the sidewalks here.

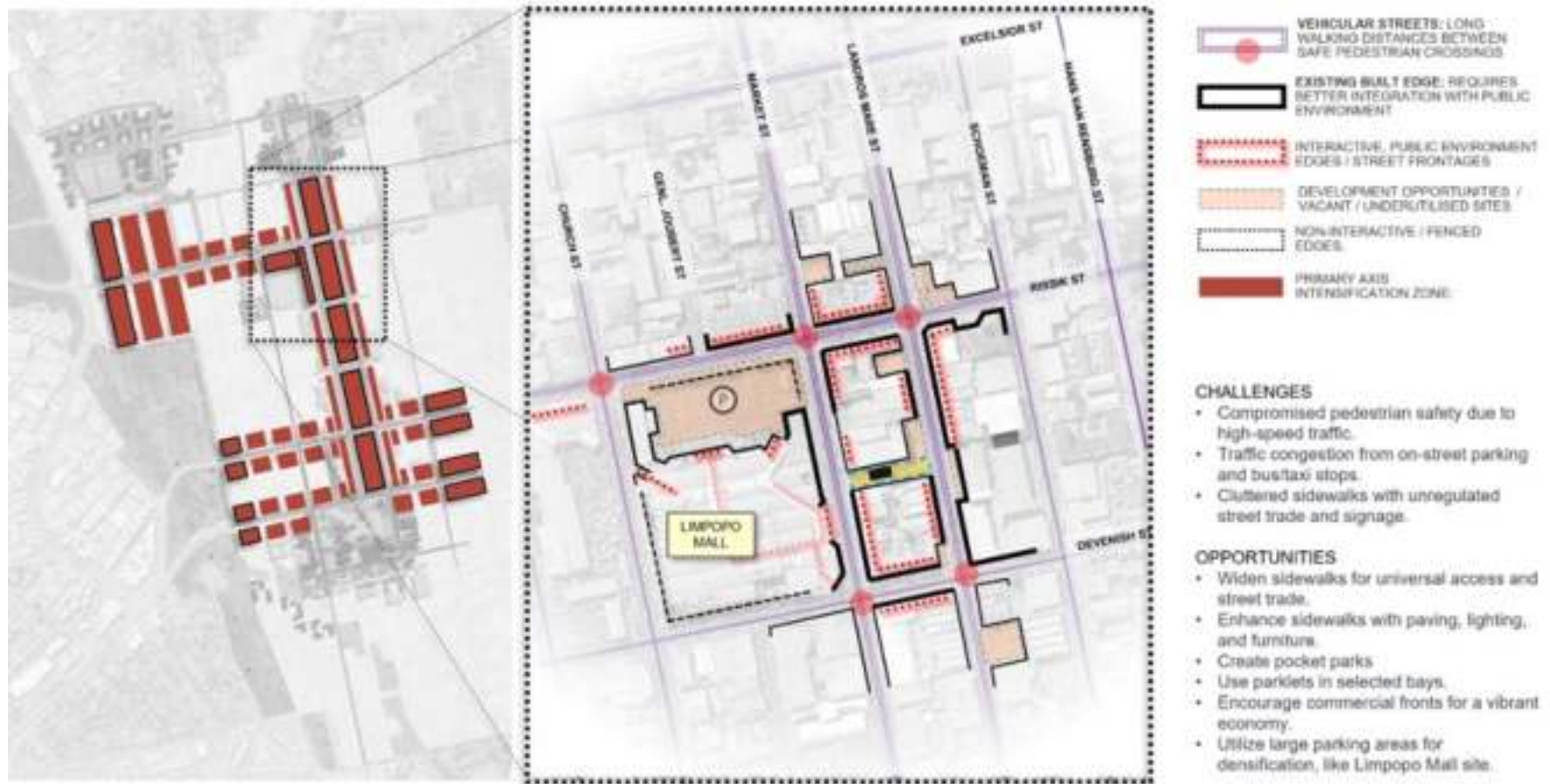


Diagram 107: Precinct 3 – Status Quo



Diagram 108: Precinct 3 – Development Proposal Plan



LAND USE & ACTIVITY

- Mixed-use zoning for night-time economy.
- Infill development for diverse uses.
- Parklets and arcades for connectivity.
- Expand eco-friendly transport.
- Sustainable infrastructure upgrades.

PROPERTY MARKET

- High demand in retail sector.
- Traffic boosts business visibility.
- Ground floor units for active engagement.
- Educational institutions drive stable demand.

DEVELOPMENT POTENTIAL

- Revitalize vacant spaces for retail variety.
- Broaden educational services.
- Convert offices to affordable housing.
- Enhance night-time economy with events.
- Organize vendor spaces for street economy.

NATURAL ENVIRONMENT

- Address street trade environmental impact.
- Implement sustainability and maintenance plans.
- Increase waste management and bin availability.
- Use indigenous plants and local public furniture.

Diagram 109: Precinct 3 – Development Proposal



Diagram 110: Precinct 3 – Built Form

13.7 PRECINCT 4

Refer to:

Diagram 111: Precinct 4 – Status Quo

Diagram 112: Precinct 4 – Development Proposal Plan

Diagram 113: Precinct 4 – Development Proposal

Diagram 114: Precinct 4 – Built Form

13.7.1 STATUS QUO

Challenges:

- Extensive underutilized land around the bus station, leading to safety concerns and neglect.
- Difficult access to the Itsoseng Entrepreneurial Centre due to inadequate underpasses and bridges.
- Inefficiencies and underuse of the bus station's primary waiting area, compounded by illegal occupations.
- Unsafe railway line crossings due to lack of permanent operation and fencing.
- Insufficient lighting and security, particularly affecting night-time safety and economic activity.

Needs Assessment:

- **Land Development:**
 - Urgent development of vacant land around the Bus Station to enhance functionality and safety.
- **Accessibility Improvements:**
 - Upgrades to underpasses and bridges for safe, easy access to the Itsoseng Entrepreneurial Centre.
- **Bus Station Optimization:**
 - Better utilization of the bus station's waiting areas, with measures to prevent illegal occupations and vandalism.
- **Railway Safety Enhancements:**
 - Implementation of safety measures, including proper fencing and operational protocols for the railway line.
- **Lighting and Security:**

- Significant improvements in lighting and security measures to ensure safety and facilitate night-time activities.

13.7.2 DEVELOPMENT PROPOSAL AND DESIGN DIRECTIVES

For Precinct 4, the development approach is focused on improving connectivity and enhancing urban living through mixed-use developments. The plan includes:

- Constructing two vehicular underpasses to seamlessly connect the north-western district with the CBD, equipped with adequate lighting, safety measures, and facilities for street trading.
- Introducing medium to high-density, mixed-use residential buildings to address inner-city housing demands, featuring retail spaces on the ground level to activate street fronts day and night.
- Creating a deep set-back along Nelson Mandela Drive to allow for residential parking within a landscaped area.
- Restoring the railway line for operational use and formalizing pedestrian crossings to ensure safe and regulated access, with potential development of a new passenger station.
- Enhancing the public realm with upgraded sidewalks, tree plantings, and improved lighting, linking key points like the Indian Centre, bus station, and Itsoseng Centre with the new underpasses, fostering a high-quality, inclusive urban environment.

13.7.3 LAND USE AND ACTIVITY PATTERN

The anticipated land use and activity pattern for Precinct 4 include:

- **Mixed-Use and Flexible Zoning:**
 - Establish adaptable zoning regulations accommodating retail, offices, and medium-higher density residential.
 - *On-Street Trade and Markets:* Allow on-street trade in specific areas, promoting a market near the railway crossing and introducing amenities such as ablutions and pissoirs, specifically near the station and the Itsoseng entrepreneurial centre.

- **New Development and Redevelopment:**
 - **Support New Development:** Introduce new buildings on the underutilized bus site and vacant sites, offering mixed-use, medium-high density residential, creating a neighbourhood and promoting perimeter blocks connected by pedestrian routes and an open space system.
 - **Community facilities:** Introduce compact community facilities to support the new residential, with shared sports facilities and connections to the existing regional sport precinct south of the CBD.
 - **Redevelopment of existing single units and second dwellings:** Support the consolidation of sites into larger ones, redevelopment to 4 storey walk-ups, and commercial along Excelsior Street.
- **Green/Open Spaces and Connectivity:**
 - **Public Squares and Green Spaces:** Introduce public squares and pocket parks where community facilities, shops, and businesses can cluster into local nodes within walking distance of residential areas.
- **Transport:**
 - **Public Transport Options:** Introduce public transport options, bicycle lanes, and pedestrian-friendly pathways prioritizing safety and accessibility.
 - **Consolidate Bus Station:** Consolidate the bus station into a compact, well-structured bus station, with clear movement networks and retail offerings surrounding, to generate economic growth.
- **Infrastructure Improvements:**
 - **Incremental Upgrades:** Design infrastructure for incremental upgrades to accommodate higher density residential and mixed-use, ensuring sustainability and minimizing environmental impact.

13.7.4 PROPERTY MARKET

PROPERTY OPPORTUNITIES:

- **Large Transportation Hub:**
 - The presence of a significant transportation hub presents opportunities for retail, service industries, and transit-oriented developments.
- **Well-Located Vacant Land:**
 - Strategically positioned vacant land offers prime opportunities for residential, commercial, and mixed-use developments, potentially enhancing the precinct's density and vibrancy.
- **Itso seng Entrepreneurial Centre:**
 - The centre serves as a focal point for entrepreneurial activity, providing a base for business development services, training, and support for local entrepreneurs.

FUTURE DEVELOPMENT POTENTIAL:

- **Residential Property Development:**
 - Develop large vacant sites with a focus on residential units, incorporating mixed-use elements at ground level to create vibrant living spaces.
 - Cater to a diverse range of income levels to ensure inclusive community development.
 - Encourage the development of a night-time economy and social services within residential areas to support community needs and enhance livability.
 - Engage the private sector in development projects to leverage investment and innovation.
- **Diversification of Transport Hub:**
 - Introduce a variety of transport providers and services, including intermodal options and long-distance taxi services, to enhance connectivity and accessibility.
 - Incorporate retail and support services within the transportation hub to improve passenger experiences and convenience.
 - Improve infrastructure such as kiosks, lockup facilities, lighting, and security to support less formal sector activities and ensure safety.

- Enhance pedestrian connections, particularly across the railway line, and explore integration with the railway station to improve overall transit efficiency.
- **Expansion of Itsoseng Entrepreneurial Centre:**
 - Broaden the centre's offerings to include retail and service provider training, supporting the growth of local businesses and entrepreneurs.
 - Develop a market area within the centre, complete with storage facilities, to provide retail opportunities for emerging entrepreneurs.
 - Diversify the range of entrepreneurial training programs to cater to varied business interests and needs.
 - Enhance support services for entrepreneurs, including the provision of meeting rooms, financial advice, mentoring, training programs, and transportation solutions.

By capitalizing on these property opportunities and exploring the outlined development potentials, Precinct 4 can evolve into a dynamic mixed-use area that integrates residential living with transportation and entrepreneurial activities. This approach will not only enhance the precinct's economic and social fabric but also contribute to the broader urban development goals of creating a vibrant, accessible, and sustainable urban environment.

13.7.5 THE NATURAL ENVIRONMENT

- Informal trading in the CBD contributes significantly to litter raising environmental and health concerns around the fresh produce stalls. The stalls often take up the entire sidewalk forcing pedestrians into the street.
- Develop a strategy focusing on ongoing maintenance and sustainability to ensure the success of the beautification and redevelopment of the Precinct. Enforcement is key as littering and pollution is a significant problem in Polokwane.
- Increased litter/ waste pick-up to ensure that waste/ litter does not overflow on the street with some ending up in the stormwater system resulting in blockages and polluting the rivers.
- Sufficient waste bins/ receptacles available in open spaces.

- Use of indigenous vegetation for beautification and ecological functioning.
- Noting the proximity of the railway line and the Polokwane Bus station, this area could result in increased emissions and dust, vegetation/trees should be chosen based on whether it could be viable to form a screening effect to reduce the effect of dust pollution. The surface of the bus station is to be maintained to not exacerbate these issues.
- Public furniture should be locally sourced and supplied to provide economic opportunities for the local community and to strengthen local ties with the space and buy-in.
- Stormwater interventions that do not put increased burden on the existing infrastructure.

13.7.6 CIVIL ENGINEERING: WATER, SANITATION AND STORMWATER

- **Water Supply** – The water network is consistent and fully covers the areas in Precinct 4, with pipes varying from 100mm to a 250mm dia along Fluorspar St. Increased water demands anticipated with proposed developments. The impact of additional demand should be checked, and upgrades implemented where required.
- **Sanitation** - The sewer network is consistent and fully covers the areas in Precinct 4. The proposed developments are mixed-use high-density housing which may result in increased discharges beyond the capacity of the existing network. The impact of additional discharges should thus be properly investigated, and upgrades implemented where required.
- **Stormwater** - The stormwater network is consistent in Precinct 4, with pipes varying from 450 to 900mm dia. Diversion of stormwater pipes discharging into proposed development sites may be required. The vacant/ underused sites in Precinct 4 are currently mostly vegetated land. Increased surface run off from new developments should be calculated and catered for as per Municipal Stormwater Management policies and processes. Implement Sustainable Urban Drainage (SUD) and Green Stormwater Infrastructure (GIS) principles.

13.7.7 ELECTRICAL ENGINEERING

- **Renewable Energy:**
 - Review, maintain and extend the support for renewable energy uptake.
 - In order to mitigate and reduce the effects of loadshedding, explore the option of entering into a Power Purchase Agreement (PPA) for a utility scale renewable energy plant for dispatchable power with an Independent Power Producer (IPP).
- **Public Lighting:**
 - Intensify the use of energy efficient lighting installations for lighting throughout the precinct particularly at the bus station and taxi ranks.
- **Demand Side Management:**
 - Review and enhance building regulations in terms of energy efficiency e.g. limits to resistive heating.
- **Network Operations:**
 - Restore the supervisory control and data analysis system (SCADA). This is to ensure the accurate capturing of demand and spare capacity, assist in fault finding and a quicker restoration of power during outages.
- **Network Capacity:**
 - Study the available capacity along the electrical network. It is initially estimated that there is approximately 15% spare although detailed analysis is required.
- **Bulk Supply:**
 - There is an overall installed capacity of 280MVA with a demand of 180MVA. A detailed study is required to determine future expansion in capacity, especially at Epsilon and Beta substations for the CoP.

13.7.8 TRAFFIC AND TRANSPORT

The Precinct Plan showcases a progressive approach to traffic engineering and transport planning that aligns seamlessly with the CBD's transit requirements. The plan's commitment to enhancing inner-city green spaces,

prioritizing pedestrian walkways, and sidewalks underscores an ambition to create a pedestrian-friendly environment. By emphasizing walkability and cycling, the plan supports sustainable transit options and contributes to a safer, more inviting urban streetscape.

The revitalization of the bus station as a key transport node is a significant highlight of the plan. This overhaul is set to transform the area's accessibility and usability, catalysing a reinvigorated transport network within the CBD. The upgrade promises to modernize the bus hub with comfortable waiting areas, efficient ticketing services, and real-time transit displays, aiming to elevate the passenger experience and increase the appeal of public transport.

Additionally, the inclusion of an overpass to navigate the railway line is a strategic enhancement that considers the specific transportation challenges of the area. The introduction of this overpass is poised to significantly mitigate vehicular congestion and minimize the interruptions typically caused by railway crossings, thereby ensuring a smoother and more reliable flow of traffic.



Diagram 111: Precinct 4 – Status Quo



Diagram 112: Precinct 4 – Development Proposal Plan



Diagram 113: Precinct 4 – Development Proposal



Diagram 114: Precinct 4 – Built Form

13.8 PRECINCT 5

Refer to:

Diagram 115: Precinct 5 – Status Quo

Diagram 116: Precinct5 — Development Proposal Plan

Diagram 117: Precinct 5 – Development Proposal

Diagram 118: Precinct 5 – Built Form

13.8.1 STATUS QUO

Challenges:

- Vacant lands along Nelson Mandela Drive are poorly maintained, underutilized, and prone to flooding, currently serving as informal taxi holdings without proper infrastructure.
- Inadequate public realm lighting and lack of defined spaces for taxi holdings contribute to safety concerns and an unwelcoming environment.
- Devenish Street, despite its successful businesses, lacks public environment enhancements and landscaping, detracting from the gateway's appeal along Rissik Street.
- The transition of single-story residential buildings to commercial uses on Excelsior, Devenish, Dahl, and Buite Streets is causing infrastructure decline and servicing issues.
- The one-way system on Rissik Street limits direct CBD access, affecting traffic flow and accessibility.

Needs Assessment:

- **Infrastructure Improvement:**
 - Develop and formalize infrastructure on vacant lands for better utilization and flood mitigation.
- **Public Realm Enhancements:**
 - Upgrade public lighting and create defined spaces for taxi holdings to improve safety and aesthetics.
- **Urban Landscaping:**
 - Introduce landscaping and public environment improvements on Devenish Street to enhance the gateway's visual appeal.

- **Zoning and Transition Management:**

- Manage the transition of properties from residential to commercial use, ensuring infrastructure can support the change.

- **Traffic and Accessibility:**

- Reevaluate the one-way system on Rissik Street to improve accessibility and traffic flow to and from the CBD.

13.8.2 DEVELOPMENT PROPOSAL AND DESIGN DIRECTIVES

For Precinct 5, the development strategy aims to regulate informal activities and boost urban quality through structured improvements. Initiatives include:

- Addressing illegal businesses and boarding houses to uplift the area and attract a wider range of residents, enhancing revenue for maintenance and infrastructure upgrades.
- Upgrading the existing taxi rank with public environment enhancements and expanded trading areas.
- Formalizing informal taxi holding areas by allocating specific spaces for taxis, recreational activities, and potential new developments.
- Revitalizing the Rissik Street Gateway with quality public spaces, better pedestrian pathways, greenery, amenities, and organized street trading shelters.
- Improving the Rissik Street Primary Axes to create a safer high-street environment with accessible crossings and sidewalks, considering a bidirectional traffic flow.
- Encouraging site consolidation for the development of medium to high-density mixed-use residential buildings, focusing on designs that enhance safety and urban interaction.

13.8.3 LAND USE AND ACTIVITY PATTERN

The anticipated land use and activity pattern for Precinct 5 include:

- **Mixed-Use and Flexible Zoning:**

- Establish adaptable zoning accommodating retail, offices, and medium to high-density residential.

- Allow on-street trade in specific areas, promoting a market near the taxi holding area.
- **New Development and Redevelopment:**
 - Introduce new gateway buildings at the Rissik-Buite Street intersection, offering retail, offices, and access to a public transport facility.
 - Review vacant land along Nelson Mandela Street for mixed-use development.
 - Support site consolidation and redevelopment to 4-6-8 storey walk-ups along main routes (Rissik, Excelior Street, Devenish streets), allowing for 2-4 storey walk-ups in the heart of these street blocks.
 - Introduce compact community facilities supporting new residential areas with shared sports facilities.
- **Green/Open Spaces and Connectivity:**
 - Introduce public squares and pocket parks, especially within vacant land along Nelson Mandela Street and redeveloped sites.
- **Transport:**
 - Introduce public transport options, bicycle lanes, and pedestrian-friendly pathways as midblocks through the 200m deep street blocks to improve pedestrian movement.
 - Review existing taxi holding areas for well-designed transport interchanges with retail, residential, and business opportunities.
- **Infrastructure Improvements:**
 - Design infrastructure for incremental upgrades to accommodate existing and new developments, ensuring sustainability and minimizing environmental impact.

13.8.4 PROPERTY MARKET

PROPERTY OPPORTUNITIES:

- **Redevelopment-Ready Sites:**
 - Numerous locations within Precinct 5 are primed for redevelopment, offering substantial potential for urban renewal and revitalization.

- **Major Informal Taxi Holding Area:**
 - The existing informal taxi holding area presents an opportunity to organize and enhance urban transport infrastructure.
- **Underutilized Green Spaces:**
 - Green areas within the precinct are currently underused and hold potential for community engagement and urban agriculture initiatives.

FUTURE DEVELOPMENT POTENTIAL:

- **Residential Property Redevelopment:**
 - Transform degraded sites into vibrant residential complexes with mixed-use components at street level to enhance urban living and provide essential services.
 - Accommodate a diverse spectrum of income levels, ensuring inclusive housing solutions that cater to various community needs.
 - Emphasize the development of student housing to bolster the local education cluster, providing proximity and accessibility for students.
 - Integrate mixed-use elements on the ground floor to furnish residents with convenient access to daily necessities and services.
 - Facilitate the provision of social services within residential developments to address broader community needs.
 - Encourage private sector investment and participation in residential redevelopment projects to leverage expertise and resources.
- **Formal Taxi Holding Facility:**
 - Upgrade the existing informal taxi holding area to a formal facility, improving organization, efficiency, and safety for both operators and users.
 - Introduce comprehensive services for taxis, including maintenance bays, valet services, and essential automotive care, enhancing the functionality of the transport hub.
 - Establish kiosks and secure storage facilities to support food vendors and other small businesses within the transport precinct, fostering economic activity and convenience.

URBAN AGRICULTURE DEVELOPMENT:

- Allocate designated allotments for community-led vegetable gardening, promoting urban agriculture as a sustainable and productive use of green spaces.
- Install necessary agricultural infrastructure, including water sources, irrigation systems, and storage solutions, to support cultivation activities.
- Offer storage facilities for gardening tools and equipment, ensuring security and accessibility for community gardeners.
- Provide agricultural extension services, such as access to quality seeds, seedlings, fertilizers, compost, and pest control solutions, to enhance productivity and sustainability.
- Explore the potential for greenhouse farming to extend the growing season and increase yield.
- Establish market facilities within the precinct to enable the direct sale of produce, encouraging local entrepreneurship and providing fresh, locally grown food to the community.

Through strategic redevelopment and the introduction of targeted facilities and services, Precinct 5 can transform into a dynamic mixed-use area that synergizes residential living, transport efficiency, and sustainable urban agriculture, contributing significantly to the overall vitality and resilience of the urban fabric.

13.8.5 THE NATURAL ENVIRONMENT

- Informal trading in the CBD contributes significantly to litter raising environmental and health concerns around the fresh produce stalls. The stalls often take up the entire sidewalk forcing pedestrians into the street.
- Develop a strategy focusing on ongoing maintenance and sustainability to ensure the success of the beautification and redevelopment of the Precinct. Enforcement is key as littering and pollution is a significant problem in Polokwane.
- Increased litter/ waste pick-up to ensure that waste/ litter does not overflow on the street with some ending up in the stormwater system resulting in blockages and polluting the rivers.
- Sufficient waste bins/ receptacles available in open spaces.

- Use of indigenous vegetation for beautification and ecological functioning.
- Public furniture should be locally sourced and supplied to provide economic opportunities for the local community and to strengthen local ties with the space and buy-in.
- Stormwater interventions that do not put increased burden on the existing infrastructure.

13.8.6 CIVIL ENGINEERING: WATER, SANITATION AND STORMWATER**• Water Supply:**

- The water network is consistent and fully covers the areas in Precinct 5, with pipes varying from 110mm to a 450mm dia. Increased water demands are anticipated with proposed re-developments. The impact of additional demand should be checked, and upgrades implemented where required.

• Sanitation:

- The sewer network is consistent and fully covers the areas in Precinct 5. The proposed re-developments are mixed-use high-density housing which may result in increased discharges beyond the capacity of the existing network. The impact of additional discharges should thus be properly investigated, and upgrades implemented where required.

• Stormwater:

- The stormwater network is consistent in Precinct 5, with 825mm and 900mm dia pipes along Rissik St. The vacant/ underused sites in Precinct 5 are currently vegetated land. Increased surface run off from new developments should be calculated and catered for as per Municipal Stormwater Management policies and processes. Implement Sustainable Urban Drainage (SUD) and Green Stormwater Infrastructure (GIS) principles.

13.8.7 ELECTRICAL ENGINEERING

- **Renewable Energy:**

- Review, maintain and extend the support for renewable energy uptake.
- In order to mitigate and reduce the effects of loadshedding, explore the option of entering into a Power Purchase Agreement (PPA) for a utility scale renewable energy plant for dispatchable power with an Independent Power Producer (IPP).
- **Public Lighting:**
 - Intensify the use of energy efficient lighting installations for lighting throughout the precinct.
- **Demand Side Management:**
 - Review and enhance building regulations in terms of energy efficiency e.g. limits to resistive heating.
- **Network Operations:**
 - Restore the supervisory control and data analysis system (SCADA). This is to ensure the accurate capturing of demand and spare capacity, assist in fault finding and a quicker restoration of power during outages.
- **Network Capacity:**
 - Study the available capacity along the electrical network. It is initially estimated that there is approximately 15% spare although detailed analysis is required.
- **Bulk Supply:**
 - There is an overall installed capacity of 280MVA with a demand of 180MVA. A detailed study is required to determine future expansion in capacity especially at Epsilon and Beta substations for the CoP.
- **Pedestrian-Friendly Intersections:**
 - Establishing clearly marked pedestrian crossings at key intersections, allowing for safe and convenient movement apart from vehicular traffic.
- **Expansive Sidewalks:**
 - Expanding sidewalks to provide sufficient space for pedestrians, thus facilitating smooth and unhindered passage.
- **Inclusive Pedestrian Signals:**
 - Installing accessible pedestrian signals, particularly for the visually impaired, ensuring all community members can navigate the precinct securely.
- **Cycle Infrastructure:**
 - Creating dedicated lanes and paths for bicycles to promote healthier, more active modes of transportation and to offer safer alternatives to motorized conveyance.
- **Strategic Parking and Loading Zones:**
 - Designating specific zones for parking and loading that do not impinge upon pedestrian areas, reducing the potential for congestion and interference with pedestrian flow.

From a transportation perspective, it is essential to prioritize pedestrian crossings in the precinct plan. This approach promotes safety and convenience for pedestrians, while also reducing traffic congestion and improving traffic flow.

13.8.8 TRAFFIC AND TRANSPORT

The taxi rank and holding area is a crucial component of any precinct plan. By upgrading and pedestrianizing this area, we can enhance the accessibility and safety of pedestrians. This approach will not only improve the overall aesthetics of the area but also create a more welcoming environment for pedestrians.

To ensure the safety and comfort of pedestrians, it is crucial to implement pedestrian priority improvements within the precinct plan. These improvements can include:



Diagram 115: Precinct 5 – Status Quo

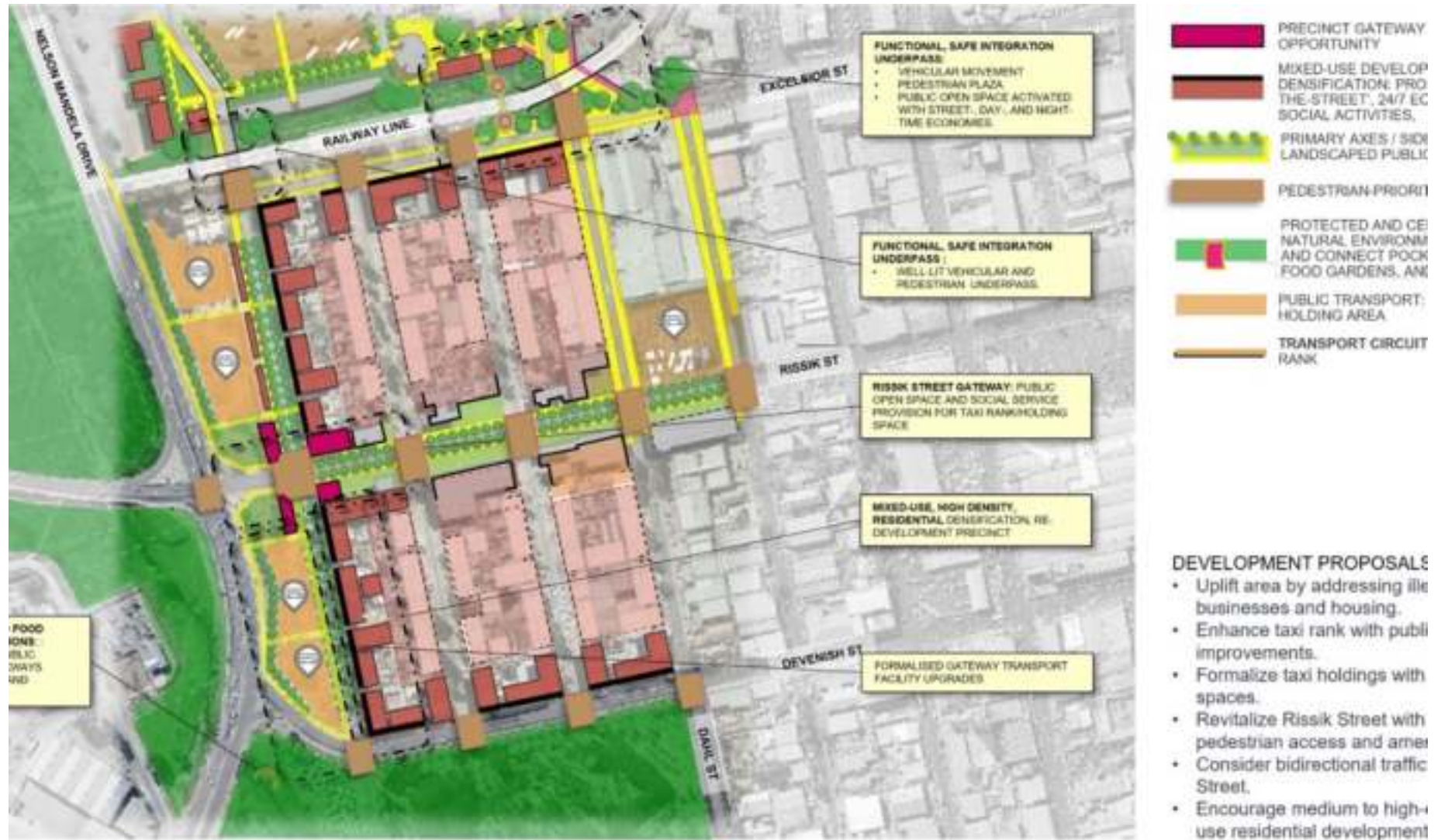


Diagram 116: Precinct5 — Development Proposal Plan



Diagram 117: Precinct 5 – Development Proposal



Diagram 118: Precinct 5 – Built Form

13.9 PRECINCT 6

Refer to:

Diagram 119: Precinct 6 – Status Quo

Diagram 120: Precinct 6 — Development Proposal Plan

Diagram 121: Precinct 6 – Development Proposal

Diagram 122: Precinct 6 – Built Form

13.9.1 STATUS QUO

Challenges:

- Predominance of single-story buildings with limited diversity and integration, underscoring a lack of functional urban mix.
- Increasing conversion of residential buildings into commercial spaces, such as offices and guest houses, signaling a shift towards higher density without clear planning guidance.
- Built environment's poor response to adjacent natural green spaces, compromising safety and aesthetic coherence.
- Inadequate lighting and movement systems within the Sterkloop/Sandriver tributary greenbelt, affecting pedestrian comfort and safety.

Needs Assessment:

- **Urban Diversification:**
 - Encourage architectural and functional diversity to foster a more integrated and vibrant urban fabric.
- **Guided Transformation:**
 - Provide clear planning and design guidelines to manage the transition towards higher density and mixed-use developments.
- **Green Space Integration:**
 - Enhance the interface between built environments and green spaces for better safety, accessibility, and visual continuity.
- **Infrastructure Enhancement:**
 - Improve lighting and pedestrian pathways within the greenbelt to ensure safe and comfortable access to natural areas.

13.9.2 DEVELOPMENT PROPOSAL AND DESIGN DIRECTIVES

For Precinct 6, the development focus is on enhancing residential density and activating public spaces while improving connectivity. Key actions include:

- Promoting redevelopment to increase residential and local business density, especially along the periphery, near commercial and governmental zones.
- Creating active and surveyed edges around the greenbelt to encourage public interaction and ensure safety in open spaces.
- Leveraging the planned public transport circuit interchange to improve accessibility to the civic park and central business district.
- Developing universally accessible pedestrian routes that are safe and illuminated, linking the precinct with the CBD, and surrounding green spaces.
- Initiating redevelopment efforts from the northern part of the precinct, progressively moving towards the Sports Precinct in the south.
- Introducing pocket parks and community gardens along walkways to enhance the urban landscape and promote local food production.

13.9.3 LAND USE AND ACTIVITY PATTERN

- **Medium to High-Density Residential and Flexible Zoning:**
 - Establish adaptable zoning to accommodate community facilities such as hospitals and offices, along with medium to high-density residential areas along the Sterkloop/Sandriver tributary greenbelt nearer the CBD.
- **Redevelopment:**
 - Support site consolidation and redevelopment, emphasizing 4-6-8 storey walk-ups along the Sterkloop/Sandriver tributary and mobility routes such as Marshall Street and grading down towards the heart of the precinct.
 - Introduce compact community facilities supporting increased residential densities, including shared sports facilities.

- **The Natural Environment and Park:**
 - Enhance the Sterkloop/Sandriver tributary into park areas and recreational facilities at key points along the open space.
- **Transport:**
 - Improve road and pedestrian connections across the tributary into the CBD and improve linkages to the sports precinct.
 - Introduce a public transport facility to improve access to the Civic core and neighbouring areas.
- **Infrastructure Improvements:**
 - Design infrastructure for incremental upgrades to accommodate redevelopment and higher density development, ensuring sustainability and minimizing environmental impact.

13.9.4 PROPERTY MARKET

PROPERTY OPPORTUNITIES LIE IN:

- Sites ripe for redevelopment.
- Low density environment.
- Underutilised green areas.

FUTURE DEVELOPMENT POTENTIAL INCLUDES:

- Residential property redevelopment:
 - Existing degraded sites need to be redeveloped into primarily.
 - Residential development with mixed use at ground level
 - Range of residential income levels to be catered for.
 - Student housing critical to support education cluster.
 - Hostel type accommodation to support sports precinct for visiting teams and tournaments.
 - Mixed use on ground floor to support residential with supplies and services.
 - Social services can also be provided.
 - Private sector to be encouraged to develop.
 - Green space provides opportunity to provide walking, running and cycling trails as well as outdoor gyms to support residential.
- Urban agriculture development:
 - Link to Precinct 5 to avoid duplication of facilities.
 - Provide agricultural allotments for vegetable growing.

- Develop support infrastructure such as boreholes, pumps, piping, storage.
- Provide storage facilities for tools and equipment.
- Develop agricultural support facilities including seeds, seedlings, fertilisers, compost, insecticides.

13.9.5 THE NATURAL ENVIRONMENT

- Informal trading in the CBD contributes significantly to litter raising environmental and health concerns around the fresh produce stalls. The stalls often take up the entire sidewalk, forcing pedestrians into the street.
- Develop a strategy focusing on ongoing maintenance and sustainability to ensure the success of the beautification and redevelopment of the Precinct. Enforcement is key as littering and pollution is a significant problem in Polokwane.
- Increased litter/ waste pick-up to ensure that waste/ litter does not overflow on the street with some ending up in the stormwater system resulting in blockages and polluting the rivers.
- Sufficient waste bins/ receptacles available in open spaces.
- Use of indigenous vegetation for beautification and ecological functioning.
- Public furniture should be locally sourced and supplied to provide economic opportunities for the local community and to strengthen local ties with space and buy-in.
- Stormwater interventions that do not put an increased burden on the existing infrastructure. Important to incorporate sustainable engineering designs for stormwater systems rather than the typical hard engineering solutions especially in this precinct due to the direct impacts on the Sterkloop/ Sandspruit tributary.

13.9.6 CIVIL ENGINEERING: WATER, SANITATION AND STORMWATER

- **Water Supply:**

- The water network is consistent and fully covers the areas in Precinct 6, with pipes varying from 75mm to a 250mm dia. Increased water demands are anticipated with proposed re-developments. The impact of additional demand should be checked, and upgrades implemented where required.
- **Sanitation:**
 - The sewer network is consistent and fully covers the areas in Precinct 6. The proposed re-developments are mixed-use high-density housing which may result in increased discharges beyond the capacity of the existing network. The impact of additional discharges should thus be properly investigated, and upgrades implemented where required.
- **Stormwater:**
 - The stormwater network is consistent in Precinct 6, with a 600mm and 900mm dia pipes along Bodenstein St and a 900mm dia pipe along Rabe St. Increased surface run off from redevelopments should be calculated and catered for as per Municipal Stormwater Management policies and processes. Implement Sustainable Urban Drainage (SUD) and Green Stormwater Infrastructure (GIS) principles.

13.9.7 ELECTRICAL ENGINEERING

- **Renewable Energy:**
 - Review, maintain and extend the support for renewable energy uptake.
 - To mitigate and reduce the effects of loadshedding, explore the option of entering into a Power Purchase Agreement (PPA) for a utility scale renewable energy plant for dispatchable power with an Independent Power Producer (IPP).
- **Public Lighting:**
 - Intensify the use of energy efficient lighting installations for lighting throughout the precinct.
- **Demand Side Management:**
 - Review and enhance building regulations in terms of energy efficiency e.g. limits to resistive heating.
- **Network Operations:**

- Restore the supervisory control and data analysis system (SCADA). This is to ensure the accurate capturing of demand and spare capacity, assist in fault finding and a quicker restoration of power during outages.

- **Network Capacity:**

- Study the available capacity along the electrical network. It is initially estimated that there is approximately 15% spare although detailed analysis is required.

- **Bulk Supply:**

- There is an overall installed capacity of 280MVA with a demand of 180MVA. A detailed study is required to determine future expansion in capacity especially at Epsilon and Beta substations for the CoP.

13.9.8 TRAFFIC AND TRANSPORT

This proposal aligns seamlessly with the CBD's transportation requisites. It emphasizes pedestrian-focused enhancements and tree planting to improve accessibility, safety, and overall comfort, aiming to forge a welcoming walking environment for residents, visitors, and commuters alike. By incorporating pedestrian-priority crossings, strategic tree planting, effective traffic calming initiatives, and infrastructure designed with pedestrians in mind, the plan advocates for a healthier, more sustainable community fabric. This approach not only enriches the urban landscape but also sets a robust framework for the precinct's future development, prioritizing pedestrian well-being and environmental sustainability at its core.



Diagram 119: Precinct 6 – Status Quo



Diagram 120: Precinct 6 — Development Proposal Plan



Diagram 121: Precinct 6 – Development Proposal



Diagram 122: Precinct 6 – Built Form

13.10 CONCLUSION

In conclusion, the detailed design process has identified six precincts within the Polokwane CBD, each subject to the application of development guidelines. The assessments and proposals for these precincts underscore the unique challenges, opportunities, and goals inherent in each area. The diverse characteristics of these precincts emphasize the need for a comprehensive and tailored approach to urban development.

The groundwork laid in identifying the status, articulating problem statements, and conducting needs assessments has paved the way for targeted interventions. Emphasis has been placed on functional integration, safety, and sustainable design principles. As we contemplate the future of Polokwane's urban landscape, the anticipated land use and activity patterns signal a commitment to fostering community-oriented spaces, driving economic growth, and promoting environmental resilience.

Transitioning from vision to reality necessitates a robust implementation strategy. This strategy, crucially, must be agile, adaptable, and collaborative, engaging stakeholders, local communities, and governmental bodies. Key considerations for success encompass phased redevelopment, infrastructure upgrades, and the establishment of community-centric facilities. The success of this vision lies in the collective effort and commitment to creating a thriving, sustainable, and inclusive urban environment for Polokwane.

14 IMPLEMENTATION AND URBAN MANAGEMENT STRATEGY

14.1 INTRODUCTION

Chapter 10 of the Polokwane CBD Urban Development Framework laid the groundwork for an ambitious Implementation Strategy aimed at catalysing significant transformation within the next five years. The strategy encompasses a comprehensive mix of substantial capital projects and strategic operational methodologies vital for the sustained revitalization of the CBD. Key areas of focus within this strategy include:

- Identification of key catalytic projects with a focus on vital infrastructure improvements such as roads and engineering services. Further studies to explore phasing possibilities and project implementation time-line planning.
- An Urban Management Strategy: guiding the execution process, establishing ongoing management and maintenance protocols, and creating and enforcing organizational structures.
- Determination of responsible entities for implementation, spanning public and private sectors, spheres of government, or specific agencies, and exploring potential partnerships.
- Specification of the institutional structures and capabilities required to bring projects to fruition.

The Municipality's role is envisioned as an enabler and facilitator of strategic developments, predominantly driven by the private sector. Its focus areas encompass:

- Adherence to the city's development strategy principles.
- Securing rights for strategic projects.
- Investment in key infrastructure (through the bulk services contribution policy and other instruments) and catalytic projects.
- Enhancement of public space quality through maintenance and upgrades, and activation of these spaces.
- Advocacy for smart and sustainable urban principles.
- Support for design guidelines that contribute to the future landscape of the CBD.

- Establishment of a review committee to streamline approval processes.
- Marketing and Promotion of the CBD to enhance investor confidence.
- Implementation of comprehensive urban management systems for maintenance, bylaw enforcement, safety, and security.
- Cultivation of collaborative networks with businesses, resident associations, community groups, private security, and local law enforcement to strengthen urban governance.

Various catalytic initiatives are poised to initiate the development process, encompassing infrastructure enhancements, transportation improvements, public space upgrades, and development facilitation, contingent upon funding availability, land acquisition, legal and policy compliance, and integration into the Integrated Development Plan (IDP) and Municipal budget cycle.

14.2 CATALYTIC PRIORITY PROJECT IDENTIFICATION

The Municipality's engagement in catalytic projects is diverse, with activities categorized as:

- **Design and Deliver:** Municipality-led projects from initiation to completion.
- **Plan and Promote:** Projects that require comprehensive planning, potentially in partnership with external entities or the private sector.
- **Study and Strategize:** Initiatives executed by external parties, with the Municipality providing facilitation and ensuring compliance.

These projects aim to stimulate economic and social growth, create a conducive business environment, and attract investments from the public and private sectors.

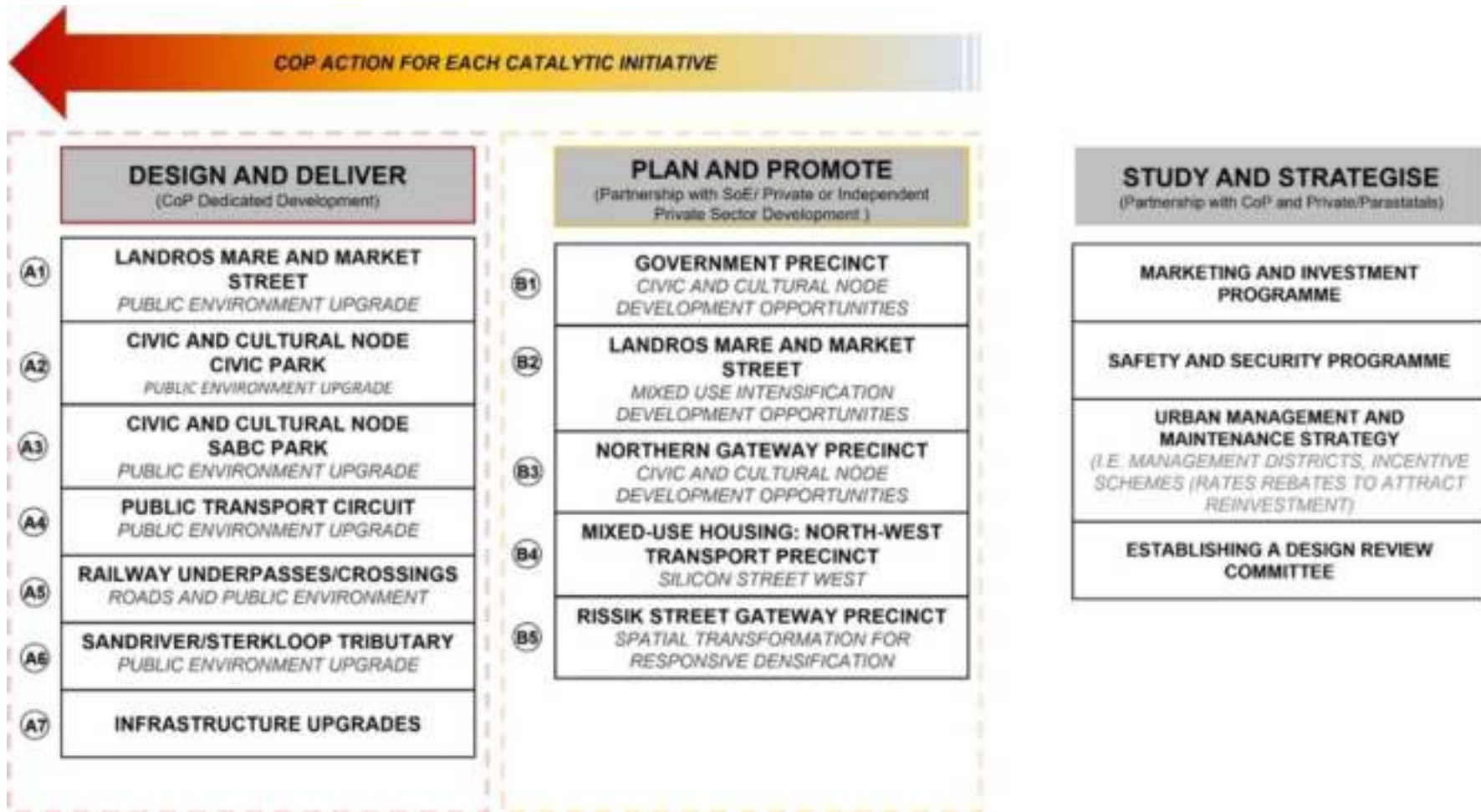


Diagram 123: Implementation and Urban Management Strategy Components

14.2.1 DESIGN AND DELIVER PROJECTS

Refer:

Diagram 124: Design and Deliver Projects Summary

Diagram 125: Design and Deliver – A1

Diagram 126: Design and Deliver – A2

Diagram 127: Design and Deliver – A3

Diagram 128: Design and Deliver – A4

Diagram 129: Design and Deliver – A5

Diagram 130: Design and Deliver – A6

Diagram 131: Design and Deliver – A7

This section contains a detailed breakdown of the 'Design and Deliver' projects, a category that encapsulates a range of Municipality-led initiatives from inception to realization. These tables outline the essential components of each project, capturing their objectives, projected outcomes, timelines, and the strategic roles they play in the comprehensive transformation of the Polokwane CBD. By delving into these tables, stakeholders will gain insight into the specific actions being undertaken to bolster the urban core with infrastructure and services designed to meet the present and future needs of the city's residents, businesses, and visitors.



Diagram 124: Design and Deliver Projects Summary

▪ **A1 Landros Mare and Market Street Upgrades:**

Project Number:	A1
Project Name:	LANDROS MARE- AND MARKET STREETS: ROAD-, AND PUBLIC ENVIRONMENT UPGRADES.
Project Description:	<p>CoP CBD UDF Development Manual:</p> <ul style="list-style-type: none"> - <u>Street Transformation</u>: Delineation of Traffic and Parking Lanes – to reclaim sidewalk space and optimise pedestrian conditions in support of the CBD’s commercial/retail/business sector. - <u>Pedestrian Zone Delineation</u>: universally accessible walkways and crossings, street lighting, street furniture, public art, signage, and sidewalk trade integration – to create a safe and highly accessible public realm. - <u>Intersection Reclamation Project</u> – reclaiming sidewalk space, and reducing pedestrian crossing lengths, at all intersections along the two streets. - <u>Traffic Management Solutions</u>: Traffic management solutions such as traffic signals are implemented to improve traffic flow and reduce congestion. - <u>Transform/Upgrade Alleys into Pedestrian Arcades</u>. - <u>Pocket Parks</u> – in vacant lots (private partnerships) - <u>On Street Parklets</u> – for further sidewalk-support/expansion, in areas where pedestrian use is high – a regulated, safe expansion of the pedestrian realm by occupying increments of on-street parking bays. - <u>Advertising and Signage Bylaws Enforcement</u> - <u>Wayfinding Signage</u> - <u>Support Ground Floor Street Front Activations</u> - <u>Heritage Considerations</u> - <u>Lighting and Signage</u>: Installing appropriate lighting and signage helps provide a safe and well-lit environment for both pedestrians and drivers, reducing the risk of accidents.
Project Objective:	Elevate the functionality of Primary Axes, to foster an urban environment that prioritizes pedestrians, thus revitalizing the Commercial, Business, and Retail Core of the Polokwane CBD.
Project Type:	Capital Intervention.
Location (refer to diagram):	LANDROS MARE- STREET MARKET STREET
Property Description:	Road Reserve of the above-mentioned streets
Property Ownership:	CoP Roads and Transport CoP Municipal

Responsibility / Implementing Department:	CoP Roads and Transport CoP Planning and Urban Development Department CoP Department of Sports, Recreation, Arts and Culture CoP Public Works Department CoP Environmental Health Department
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Scoping, Feasibility Study, Design and Engineering, Construction and Implementation, Maintenance and Monitoring
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority
Risks / Shortfalls:	Lack of funding may delay the project, Stakeholder Engagement, Stakeholder resistance, Environmental Impacts
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.

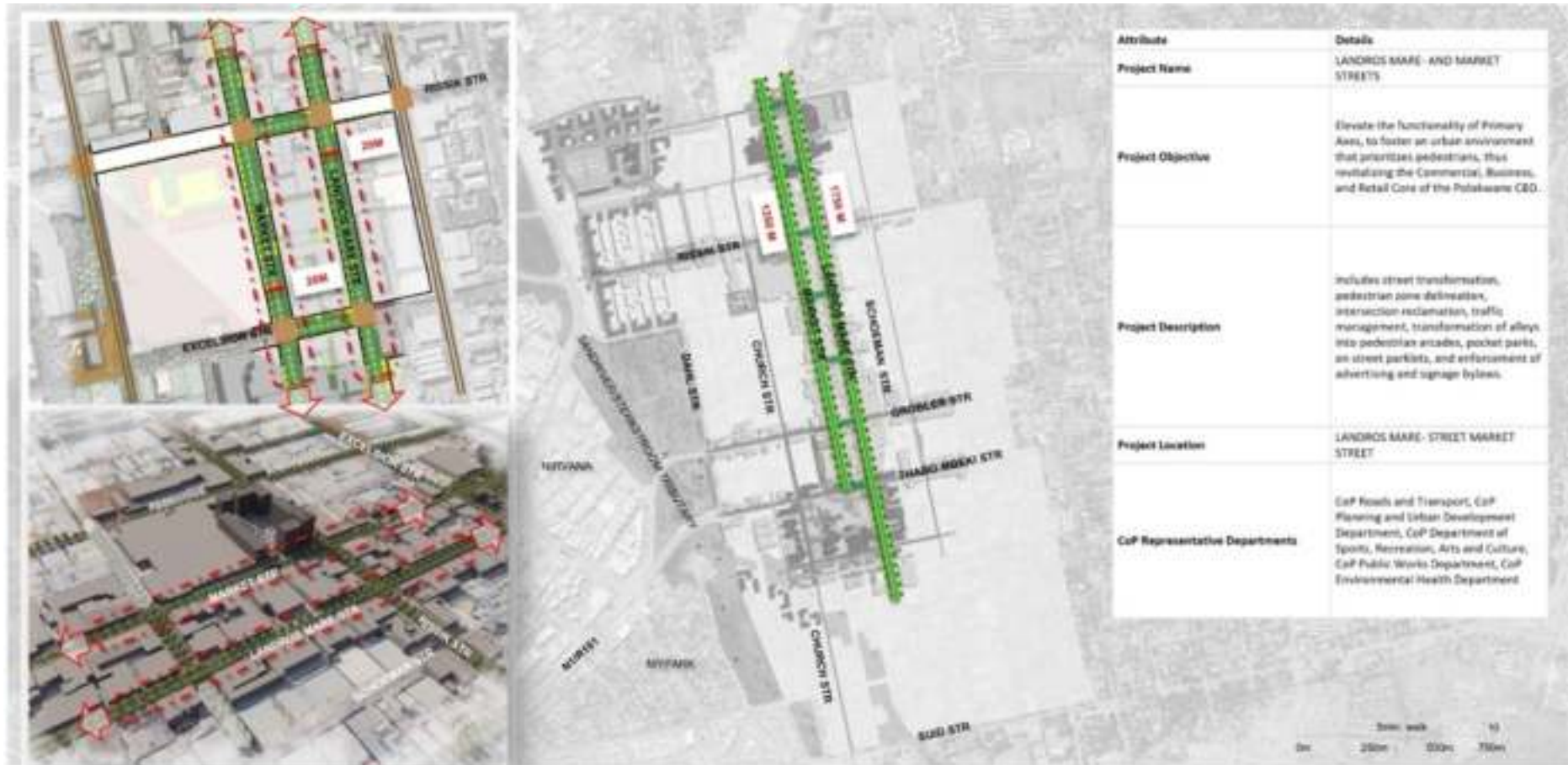


Diagram 125: Design and Deliver – A1

▪ **A2 Civic Park Enhancements:**

Project Number:	A2
Project Name:	CIVIC PARK – Civic and Cultural Node: ROAD-, AND PUBLIC ENVIRONMENT UPGRADES.
Project Description:	CoP CBD UDF Development Manual: <ul style="list-style-type: none"> - <u>Primary Open Space Principles:</u> - <u>Open Space Activation and Management Strategy:</u> - <u>Street Transformation:</u> Delineation of Traffic and Parking Lanes – to reclaim sidewalk space and optimise pedestrian conditions in support of the CBD’s commercial/retail/business sector. - <u>Pedestrian Zone Delineation:</u> universally accessible walkways and crossings, street lighting, street furniture, public art, signage, and sidewalk trade integration – to create a safe and highly accessible public realm. - <u>Intersection Reclamation Project</u> – reclaiming sidewalk space, and reducing pedestrian crossing lengths, at all intersections providing park access. - <u>Ablutions & Pissiors:</u> - <u>Advertising and Signage</u> Bylaws Enforcement - <u>Wayfinding Signage</u> - <u>Support Ground Floor Street Front Activations</u> - <u>Heritage Considerations</u>
Project Objective:	The CIVIC PARK project's objective is to rejuvenate the park and its environs into a vibrant civic and cultural node by upgrading roads, optimizing open spaces, and enhancing pedestrian infrastructure. This revitalization includes repurposing derelict municipal buildings, improving public safety, and reconfiguring parking areas into versatile spaces for community activities, all while preserving heritage and ensuring universal accessibility.
Project Type:	Capital Intervention.
Location (refer to diagram):	Civic Park and Adjacent/Surrounding Street Reserves: Thabo Mbeki-, Landros Mare-, Church-, And Bodenstein Streets
Property Description:	Road Reserve of the above-mentioned streets
Property Ownership:	CoP Roads and Transport CoP Municipal
Responsibility / Implementing Department:	CoP Roads and Transport CoP Department of Sports, Recreation, Arts and Culture CoP Planning and Urban Development Department CoP Public Works Department CoP Environmental Health Department

Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Scoping, Precinct, Road Master Plan, Site Investigation / Survey Feasibility Study, Design and Engineering, Construction and Implementation, Maintenance and Monitoring
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy)
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority; Department of Water and Sanitation; Limpopo Department of Economic Development, Environment and Tourism
Risks / Shortfalls:	Lack of funding may delay the project, Stakeholder Engagement, Stakeholder resistance, Environmental Impacts
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020-Chapter 8-Dust Emissions

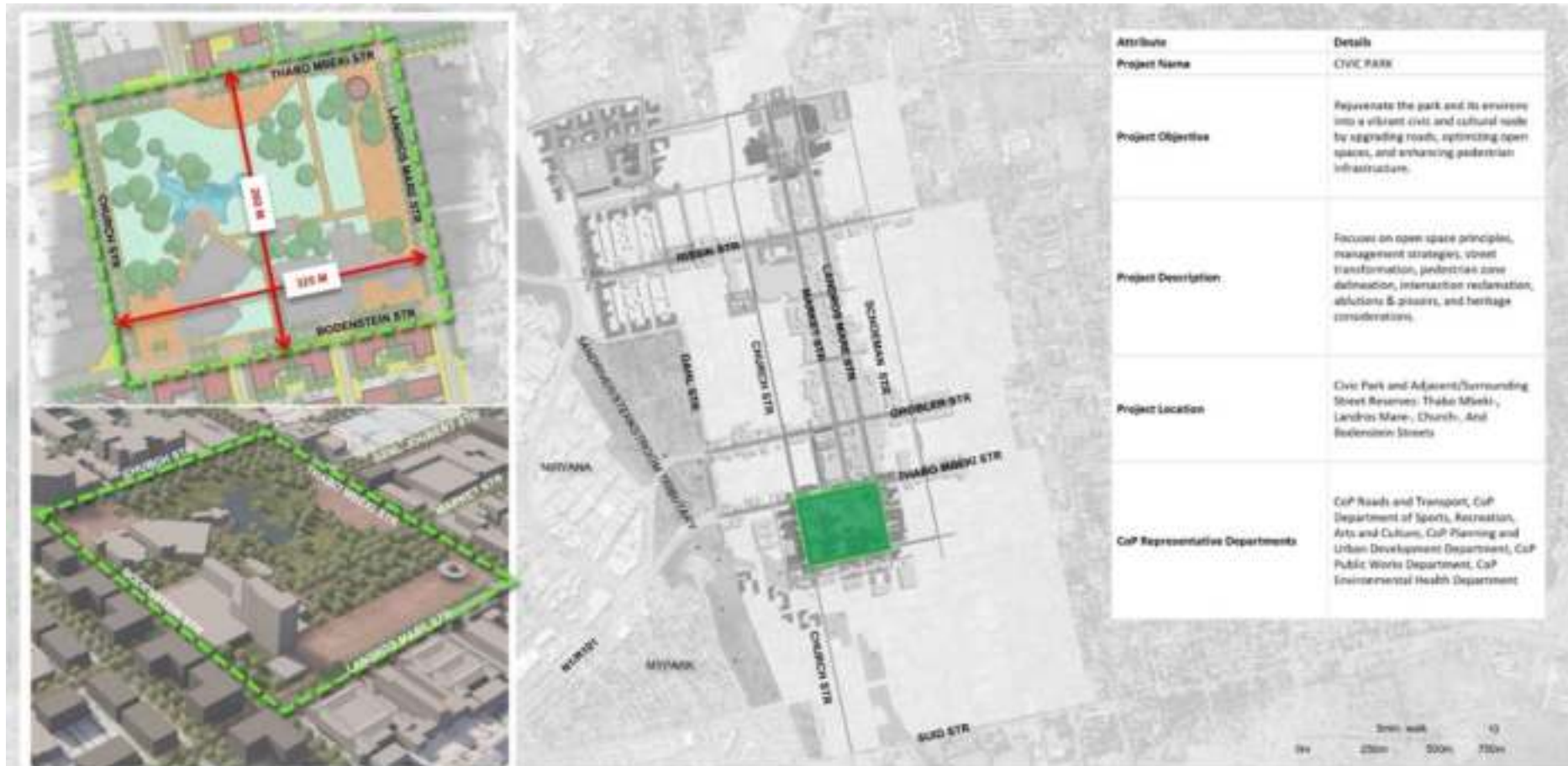


Diagram 126: Design and Deliver – A2

▪ **A3 SABC Park:**

Project Number:	A3
Project Name:	SABC PARK – Civic and Cultural Node: ROAD-, AND PUBLIC ENVIRONMENT UPGRADES.
Project Description:	CoP CBD UDF Development Manual: <ul style="list-style-type: none"> - <u>Primary Open Space Principles:</u> - <u>Open Space Activation and Management Strategy:</u> - <u>Street Transformation:</u> Delineation of Traffic and Parking Lanes – to reclaim sidewalk space and optimise pedestrian conditions in support of the CBD’s commercial/retail/business sector. - <u>Pedestrian Zone Delineation:</u> universally accessible walkways and crossings, street lighting, street furniture, public art, signage, and sidewalk trade integration – to create a safe and highly accessible public realm. - <u>Intersection Reclamation Project</u> – reclaiming sidewalk space, and reducing pedestrian crossing lengths, at all intersections providing park access. - <u>Ablutions & Pissiors:</u> - <u>Advertising and Signage</u> Bylaws Enforcement - <u>Wayfinding Signage</u> - <u>Support Ground Floor Street Front Activations</u> - <u>Heritage Considerations</u>
Project Objective:	The SABC PARK project’s objective is to rejuvenate the park and its environs into a vibrant civic and cultural node by upgrading roads, optimizing open spaces, and enhancing pedestrian infrastructure. This revitalization includes repurposing derelict municipal buildings, improving public safety, and reconfiguring park areas into versatile spaces for community activities, all while preserving heritage and ensuring universal accessibility.
Project Type:	Capital Intervention.
Location (refer to diagram):	SABC Park and Adjacent/Surrounding Street Reserves: Landros Mare-, Market-, Excelsior-, And Bodenstein Streets
Property Description:	Municipal
Property Ownership:	City of Polokwane
Responsibility / Implementing Department:	Limpopo Department of Economic Development, Environment and Tourism CoP Roads and Transport CoP Department of Sports, Recreation, Arts and Culture CoP Environmental Resource Management
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct, Road Master Plan, Site Investigation / Survey

Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority; Department of Water and Sanitation, Limpopo Department of Economic Development, Environment and Tourism
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020-Chapter 8-Dust Emissions

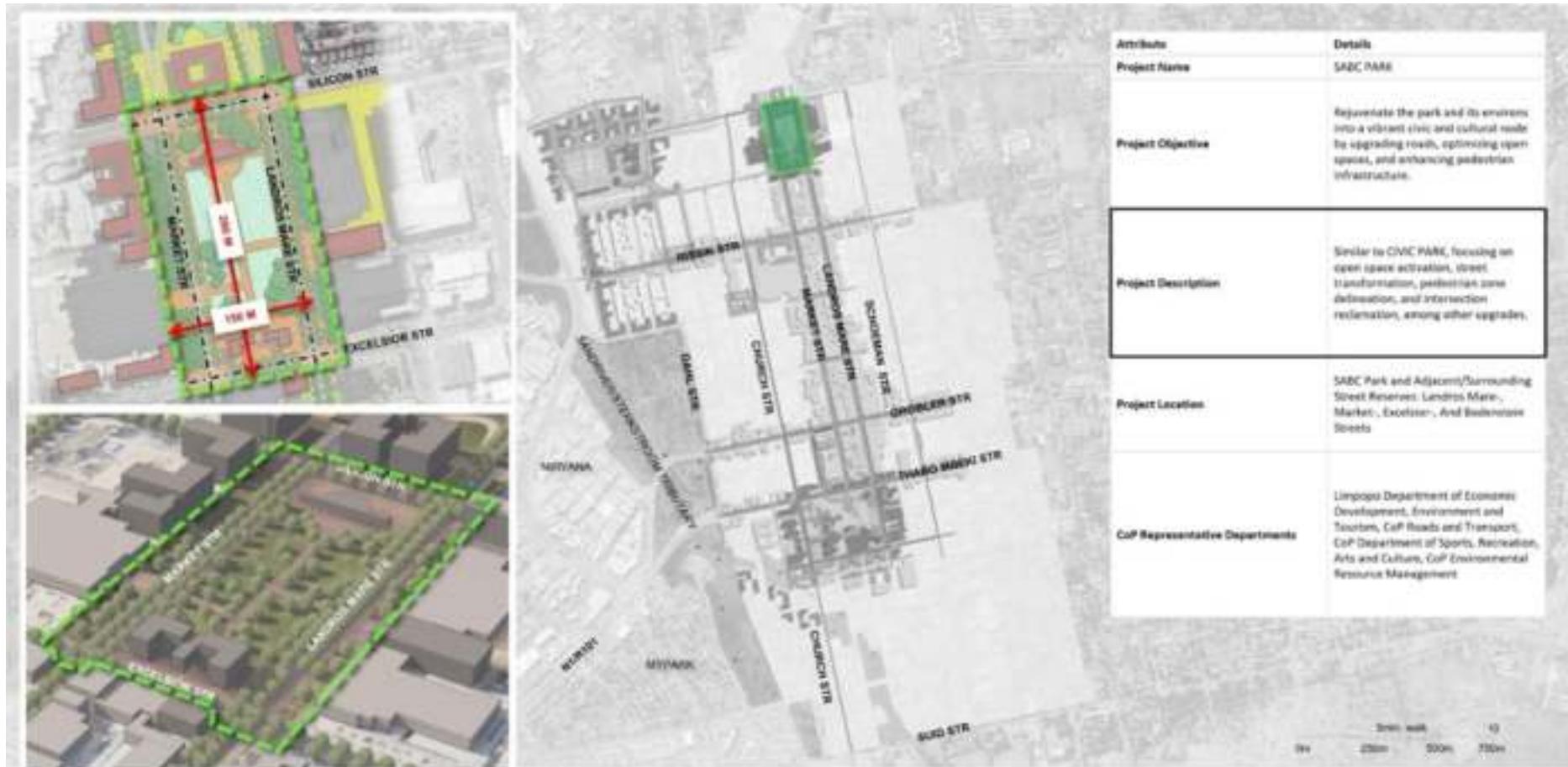


Diagram 127: Design and Deliver – A3

▪ **A4 Public Transport Circuit Development:**

Project Number:	A4
Project Name:	PUBLIC TRANSPORT CIRCUIT ROAD-, AND PUBLIC ENVIRONMENT UPGRADES.
Project Description:	Proposed CBD Public Transport Circuit aims to connect current and planned taxi stands, reducing congestion on Landros Mare and Market Streets. It introduces North-South and East-West carriers, including a new link from Church Street to the Market/Landros Mare intersection. The project includes street transformations to enhance pedestrian conditions, sidewalk space optimization, shorter pedestrian crossings, provisions for street trade, public restrooms, and clear wayfinding signage.
Project Objective:	Create safe and accessible transport laybys along a dedicated public transport route - parallel to the primary core, mixed use activity on Landros Mare, and Market Streets.
Project Type:	Capital Intervention.
Location (refer to diagram):	Civic Park and Adjacent/Surrounding Street Reserves: Thabo Mbeki-, Landros Mare-, Church-, And Bodenstein Streets
Property Description:	Road Reserve of the above-mentioned streets
Property Ownership:	CoP Roads and Transport
Responsibility / Implementing Department:	CoP Roads and Transport
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Scoping, Feasibility Study, Design and Engineering, Construction and Implementation, Maintenance and Monitoring
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management Draft Air Quality Management By-Law, 2020-Chapter 8-Dust Emissions

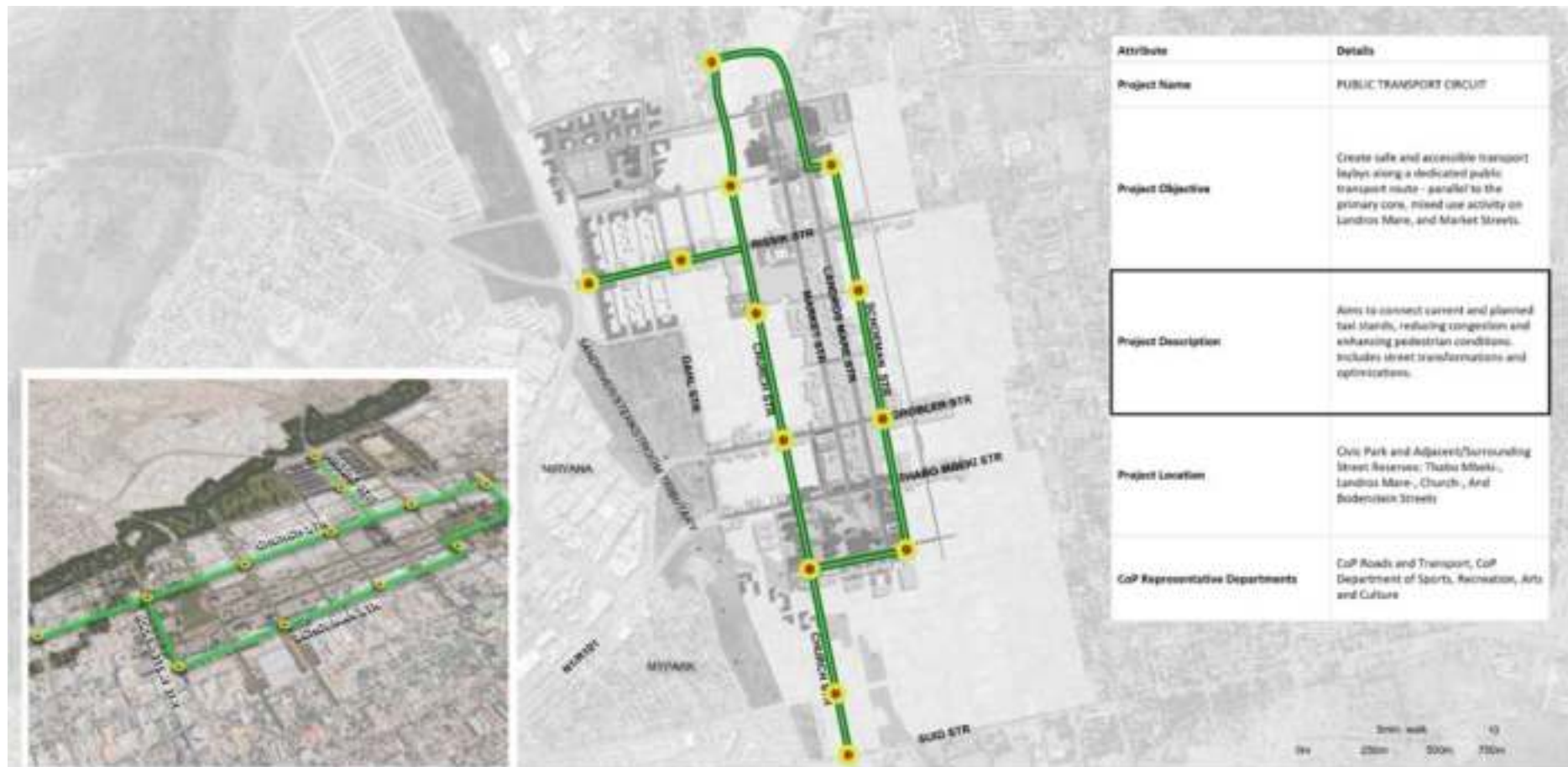


Diagram 128: Design and Deliver – A4

▪ **A5 Railway Underpasses/Crossings Improvements:**

Project Number:	A5
Project Name:	RAILWAY UNDERPASSES: VEHICULAR AND PEDESTRIAN ROAD-, AND PUBLIC ENVIRONMENT UPGRADES.
Project Description:	<p>Proposed upgrades include:</p> <ul style="list-style-type: none"> • a new vehicular underpass at Buite Street for northern access, and • The widening of the existing underpass (Dahl-, and Excelsior Streets); <p>Integrating traffic and pedestrian flow across the railway, connecting the CBD with key points (Polokwane Bus Station and Itsoseng Entrepreneurial Centre). This project aims to ensure safe railway crossings and stimulate activity in commercial and social spaces along the pedestrian routes.</p> <p>The Dahl Street underpass – located west of the Indian Centre – includes commercial, retail, and social spaces to stimulate activity and support safe crossing.</p>
Project Objective:	Improve functional and safe, universally accessible integration for users through a vibrant, 24/7 mixed-use, underpass precinct, accommodating vehicular crossing and pedestrian walkways with trade/retail opportunities.
Project Type:	Capital Intervention.
Location (refer to diagram):	Buite Street Reserve & Northern Extension. Blaauwberg (North) to Dahl Street (South) extension crossing Excelsior Street.
Property Description:	Road Reserve of the above-mentioned streets
Property Ownership:	CoP Roads and Transport Passenger Rail Agency of South Africa (PRASA)
Responsibility / Implementing Department:	CoP Roads and Transport
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Scoping, Feasibility Study, Design and Engineering, Construction and Implementation, Maintenance and Monitoring
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs

Government Role Player/s:	Provincial and Local Dept. of Roads and Transport Passenger Rail Agency of South Africa (PRASA)
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) Draft Air Quality Management By-Law, 2020-Chapter 8-Dust Emissions

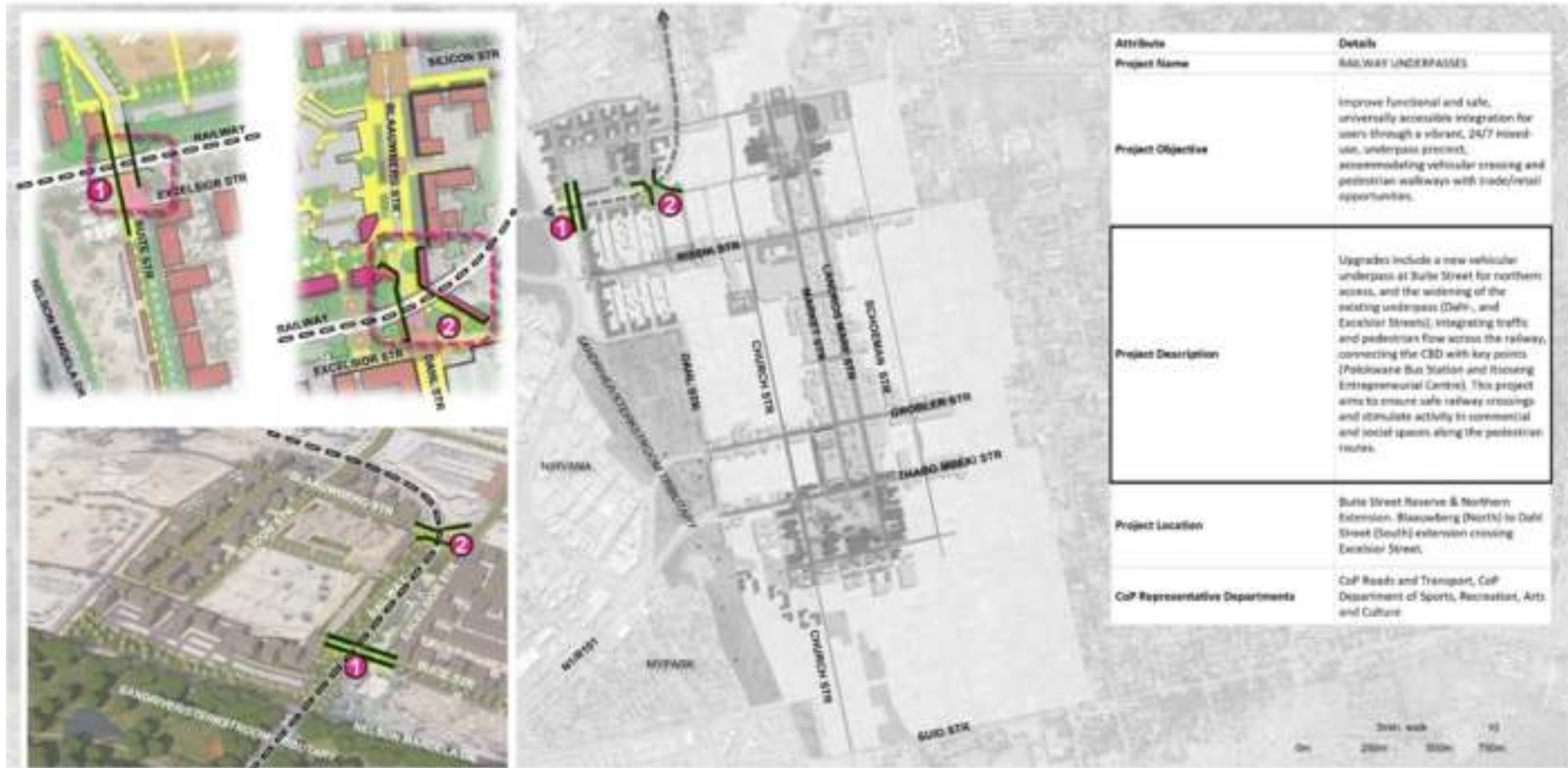


Diagram 129: Design and Deliver – A5

▪ **A6 Sandriver/Sterkloop Tributary Enhancements:**

Project Number:	A6
Project Name:	SANDRIVER / STERKLOOP TRIBUTARY NATURAL- AND PUBLIC ENVIRONMENT UPGRADES.
Project Description:	<p>Ecology: Enhance native biodiversity through corridor restoration. Water: Apply WSUD/SUD for water cycle integration and quality. Community: Foster food security with gardens and pollution control via river clean-ups. Eco-Tourism: Promote eco-tourism and education through natural trails. Economy: Support sustainable practices and cohesive urban-environmental governance. Infrastructure: Invest in technology for efficient services and community interaction. Planning: Embrace adaptable and secure urban designs. Culture: Cultivate vibrancy with cultural events and inclusive space planning. Public Spaces: Activate areas with diverse, operational, and engaging tools. Development: Propel inclusive growth with strategic, cost-effective public space use. Promote activity in targeted areas throughout the tributary – Such as cafes, market gardens, amphitheatres, localised parks and walkways. Promote activated edges along the tributary – identify development opportunities at key locations that can engage with the open space.</p>
Project Objective:	The objective for the 'Sandriver / Sterkstroom Tributary Ecological and Recreational Environment' project is to foster a sustainable and engaging natural habitat through the revitalization of ecological corridors, implementation of water-sensitive design, and conservation practices. The project will integrate community-centric initiatives such as food gardens, eco-tourism, and cultural programming, alongside infrastructural upgrades and strategic planning, to enhance biodiversity, support local economies, and ensure inclusive, dynamic public spaces. This multifaceted approach aims to create a resilient urban environment that balances ecological integrity with recreational and economic vitality.
Project Type:	Capital Intervention.
Location (refer to diagram):	SANDRIVER/STERKLOOP TRIBUTARY AND NATURAL ENVIRONMENT
Property Description:	Public Open Space
Property Ownership:	CoP Municipal

Responsibility / Implementing Department:	CoP Department of Sports, Recreation, Arts and Culture
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct, Site Investigation / Survey
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy)
Private Sector Role Player/s:	Business, Community and NGOs, Environmental CBOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Department of Water and Sanitation, Limpopo Department of Economic Development, Environment and Tourism
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196)

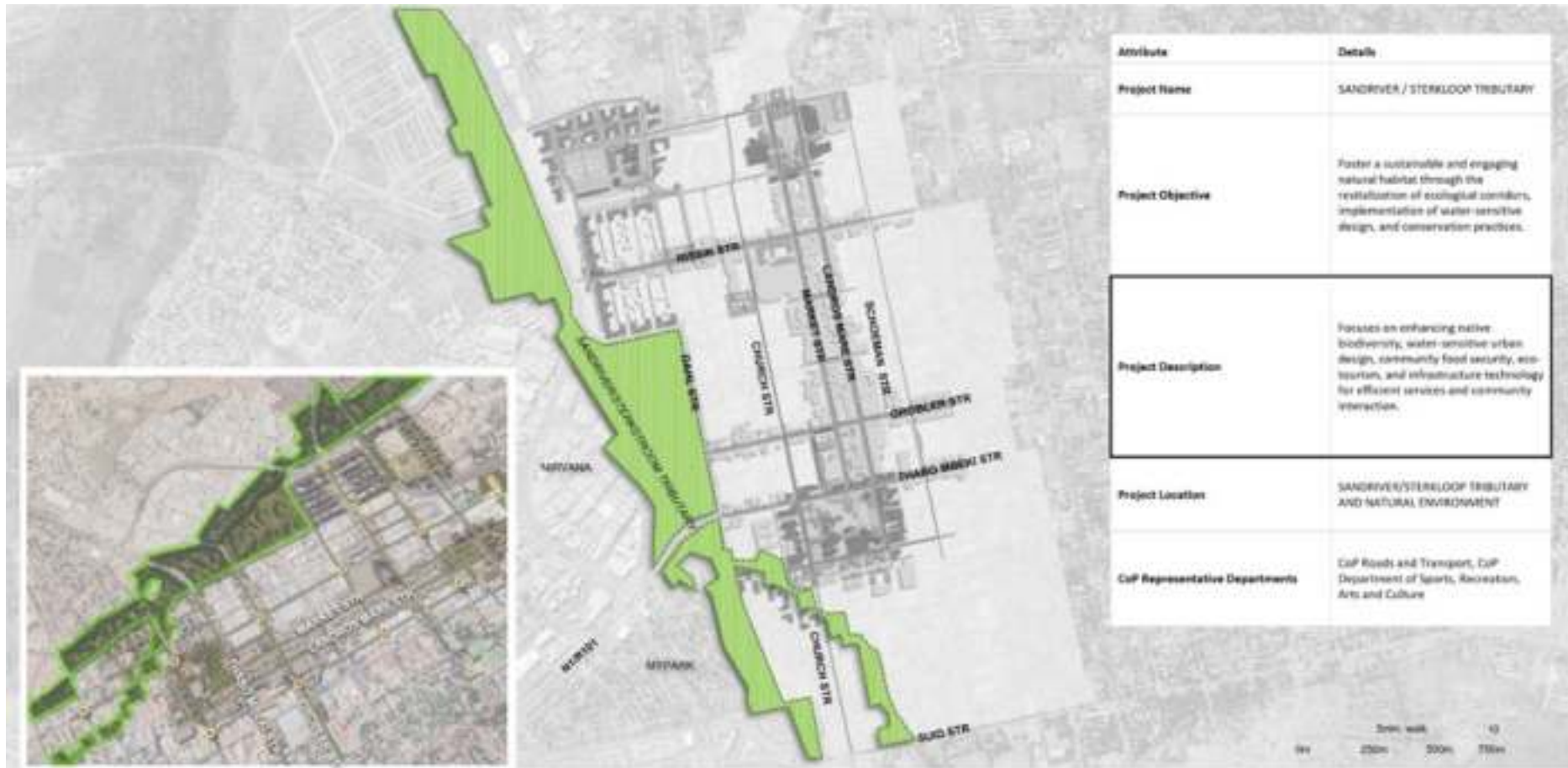


Diagram 130: Design and Deliver – A6

▪ **A7 General Infrastructure Upgrades:**

Project Number:	A7
Project Name:	INFRASTRUCTURE UPGRADES ROADS, SERVICES, AND INFRASTRUCTURE (water, sewer, stormwater, electricity)
Project Description:	<p>Upgrading and Enhancement of civil infrastructure to support urban development: <u>Solar, Water harvesting, Stormwater Management, Sewer Treatment</u></p> <p>Water: The Polokwane CBD water reticulation network was generally asbestos pipes. The Municipality has however replaced most of the asbestos pipes with uPVC (Unplasticized Polyvinyl Chloride) and HDPE (High-density polyethylene) pipes. The next phase for the replacement of asbestos pipes must be prioritised as highlighted in the SDF. Promote water reuse such as the use of Package plants. Water treated from the package plants can be used for irrigation and toilet flushing where feasible, thus reducing water demand. Promote rainwater harvesting on buildings with flat and slightly sloped roofs.</p> <p>Sanitation: The total average domestic and industrial wastewater flow that can be treated at the existing Polokwane WWTP is 25.4 Ml/day versus the total incoming flow which is approximately 25 Ml/day, hence represents about 100% of the available capacity. To ensure adequate provision of wastewater treatment to meet current and future discharges the planned new Regional Wastewater Treatment Plant needs to be prioritised. The processing and disposal of municipal wastewater sludge at the existing Polokwane WWTP has increased in importance since the establishment of secondary treatment standards by DWAf. The disposal of sludge on the existing sites is limited and alternative sludge disposal schemes must be identified.</p> <p>Stormwater: Improper waste management and infrastructure maintenance reduces and limits the capacity of stormwater infrastructure, hence pose a threat for the CBD to be prone to flooding. Improve routine maintenance of stormwater infrastructure to ensure that the network is operating at full capacity. The introduction of silt traps where discharging to the spruit to minimise the effluent and pollution into the spruits will be an important intervention.</p> <p>Energy & Electricity:</p>

	<p>Renewable Energy – Review, maintain and extend the support for renewable energy uptake through development of standards, guidelines, and incentives. To mitigate and reduce the effects of loadshedding, explore the option of entering into a Power Purchase Agreement (PPA) for a utility scale renewable energy plant for dispatchable power with an Independent Power Producer (IPP). Public Lighting – Intensify the use of energy efficient lighting installations for lighting throughout the precincts. Demand Side Management - Review and enhance building regulations in terms of energy efficiency e.g. limits to resistive heating. Network Operations -Restore the supervisory control and data analysis system (SCADA). This is to ensure the accurate capturing of demand and spare capacity, assist in fault finding and a quicker restoration of power during outages. Network Capacity –Study the available capacity along the electrical network. It is initially estimated that there is approximately 15% spare although detailed analysis is required. Bulk Supply – There is an overall installed capacity of 280MVA with a demand of 180MVA. A detailed study is required to determine future expansion in capacity especially at Epsilon and Beta substations for the CoP.</p>
Project Objective:	<p>General Civil Infrastructure Upgrades Sustainable and Green infrastructure interventions Electrical Infrastructure Upgrades, Energy Procurement and Energy Management Sufficient capacity for water provision, wastewater treatment and reducing flood risk</p>
Project Type:	Capital Intervention.
Location (refer to diagram):	Throughout the CBD
Property Description:	Municipal
Property Ownership:	City of Polokwane Municipal
Responsibility / Implementing Department:	<p>CoP Infrastructure Services (Roads and Stormwater, Water and Sanitation) CoP Department of Energy Services: Planning and Development CoP Planning and Urban Development Department</p>
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	<p>Planning & Specification, Precinct, Road Master Plan, Site Investigation / Survey Energy Master planning Water and Sanitation Master planning</p>

Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Infrastructure Services, Energy Services: Planning and Development)
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority; Department of Water and Sanitation, Limpopo Department of Economic Development, Environment and Tourism, Department of Public Works – Limpopo; ESKOM, Department of Mineral Resources and Energy, National Energy Regulator of South Africa
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment, improved service delivery, sustainable and green infrastructure, economic impetus. Improved energy security, improved energy infrastructure maintenance, improved energy efficiency Improved water security, treatment of wastewater and stormwater management
Notes:	Implementation of the bulk services contribution policy and other infrastructure and engineering policies and standards.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020-Chapter 8-Dust Emissions

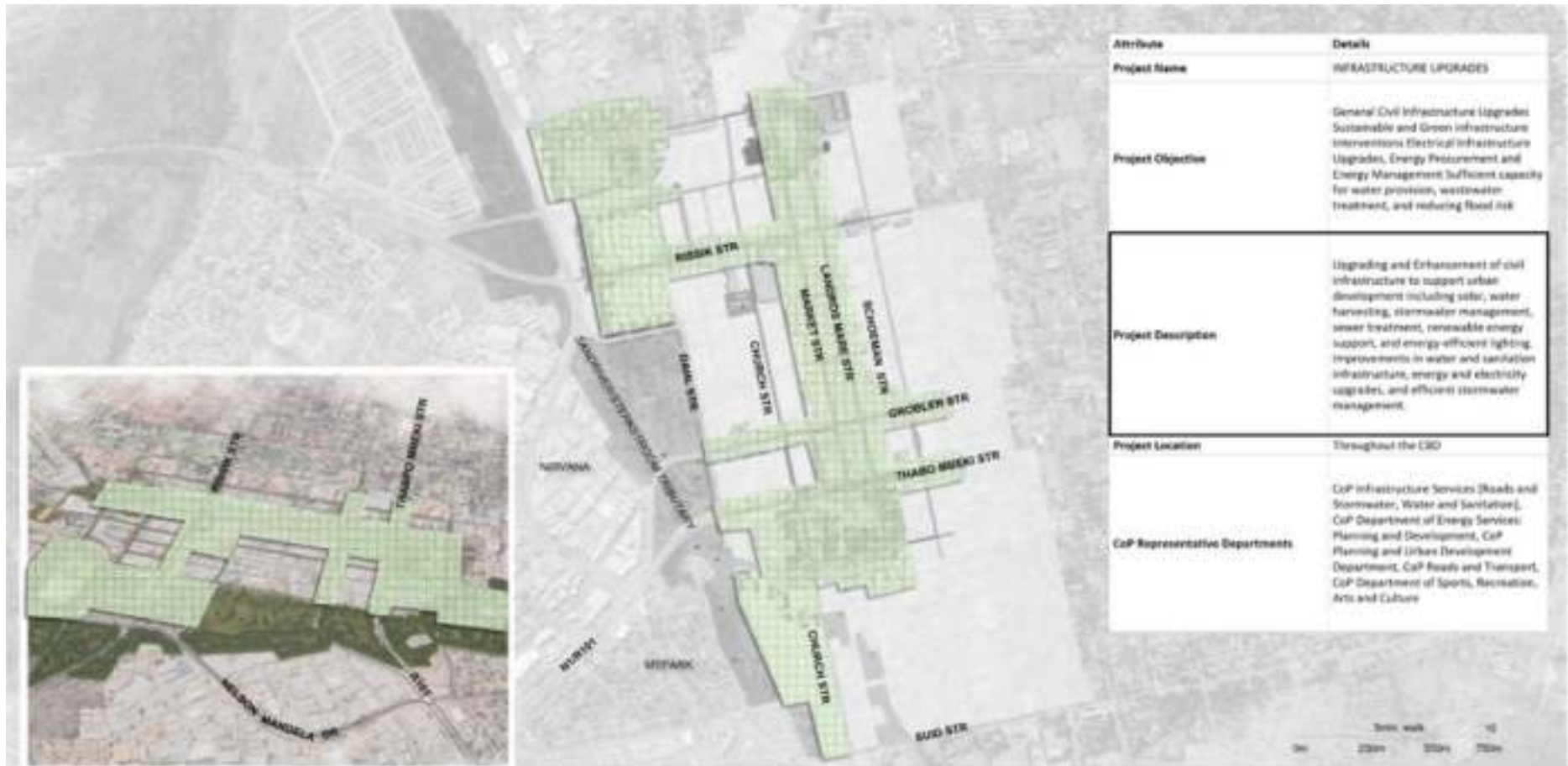


Diagram 131: Design and Deliver – A7

14.2.2 PLAN AND PROMOTE PROJECTS

Refer:

Diagram 132: Plan and Promote Projects Summary

Diagram 133: Plan and Promote – B1

Diagram 134: Plan and Promote – B2

Diagram 135: Plan and Promote – B3

Diagram 136: Plan and Promote – B4

Diagram 137: Plan and Promote – B5

This section introduces the detailed compendium of 'Plan and Promote' projects, which require extensive planning and collaborative efforts potentially involving partnerships with external entities or the private sector. The project tables provided here offer an in-depth look at the initiatives poised to enhance the Polokwane CBD's socio-economic fabric. Each table encapsulates the vision, scope, and anticipated impact of the projects, laying out a clear path for strategic development. These plans stand as a testament to the city's commitment to creating a dynamic and sustainable urban environment through strategic foresight and cooperative engagement.



Diagram 132: Plan and Promote Projects Summary

▪ **B1 – Government Precinct Development:**

Project Number:	B1
Project Name:	GOVERNMENT PRECINCT – Civic and Cultural Node: DEVELOPMENT OPPORTUNITIES
Project Description:	Site Analysis: Collaborate with landowners near CIVIC PARK to assess vacant sites for the potential "Government Precinct," aimed at hosting the "Limpopo Provincial Legislature." Strategic Location: Explore the benefits of situating the Legislature in the CBD to leverage governmental presence for urban revitalization. Civic Integration: Examine the role of government facilities in enhancing the CBD's vibrancy and utility.
Project Objective:	To counteract the decentralization of governmental services by strategically establishing the Government Precinct within the CBD, thereby invigorating the city centre and reversing urban sprawl effects.
Project Type:	'Plan and Promote' – incentivise public sector investment
Location (refer to diagram):	SABC Park and Adjacent/Surrounding Street Reserves: Landros Mare-, Market-, Excelsior-, And Bodenstein Streets
Property Description:	Vacant sites
Property Ownership:	-
Responsibility / Implementing Department:	CoP Planning and Urban Development Department CoP Department of Sports, Recreation, Arts and Culture
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct Master Plan, Site Investigation / Survey
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority; Department of Water and Sanitation, Limpopo Department of Economic Development, Environment and Tourism
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.

Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020
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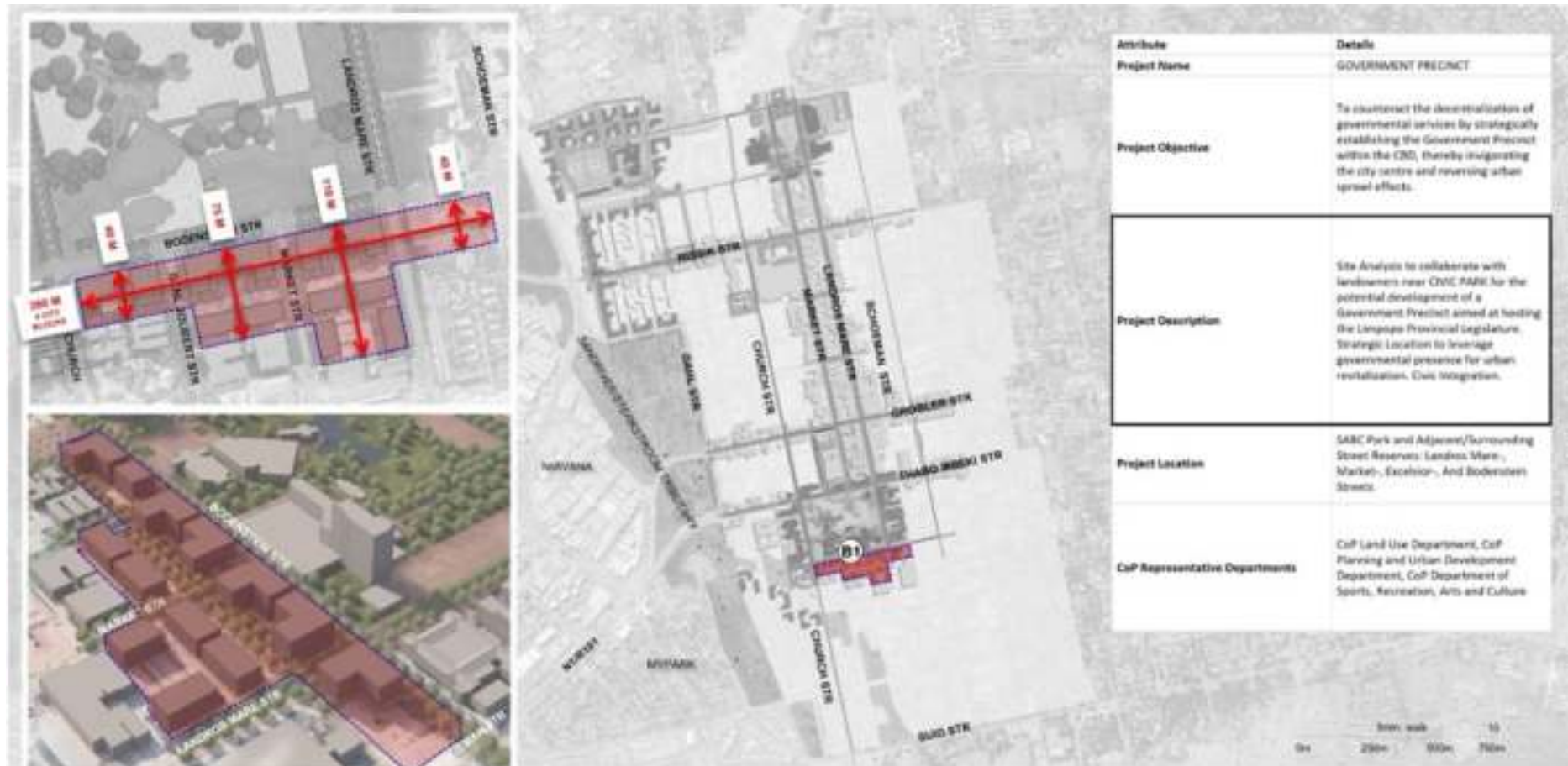


Diagram 133: Plan and Promote – B1

▪ **B2 – Landros Mare and Market Street Densification:**

Project Number:	B2
Project Name:	LANDROS MARE AND MARKET STREET MIXED USE INTENSIFICATION AND DEVELOPMENT OPPORTUNITIES
Project Description:	<p>Partnership Engagement: Forge collaborations with Landros Mare and Market Street landowners to tap into development potentials.</p> <p>Use Enhancement: Strengthen existing functions to support a vibrant, round-the-clock, mixed-use urban core.</p> <p>Investment Promotion: Encourage private sector contributions to CBD rejuvenation with attractive incentives.</p> <p>Social Infrastructure: Facilitate the integration of community amenities to enrich the precinct's social fabric.</p> <p>Strategic Alignment: Foster synergy between private and public sectors to achieve coherent CBD development objectives, enhancing functionality and vibrancy.</p> <p>Density and Intensification: Advocate for densification and intensified land use along primary city routes, ensuring safety and continual activity within the CBD.</p>
Project Objective:	<p>Collaborate with landowners and tenants to foster densification and enhance land use along key CBD thoroughfares, beginning with Landros Mare and Market Streets, to cultivate a secure, always-active urban district conducive to commercial, social, and complementary functions.</p> <p>This endeavour is complemented by the 'Design & Deliver Project A2, Public Environment Upgrades' targeting the same streets, ensuring a cohesive and supportive development framework.</p>
Project Type:	'Plan and Promote' – incentivise private sector investment
Location (refer to diagram):	Landros Mare-, and Market Street Reserves:
Property Description:	Sites (and their uses) along the Road Reserve of the above-mentioned streets
Property Ownership:	Predominantly Private
Responsibility / Implementing Department:	CoP Roads and Transport CoP Planning and Urban Development Department CoP Department of Sports, Recreation, Arts and Culture
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct, Road Master Plan, Site Investigation / Survey

Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy)
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020-Chapter 8: Dust Emissions

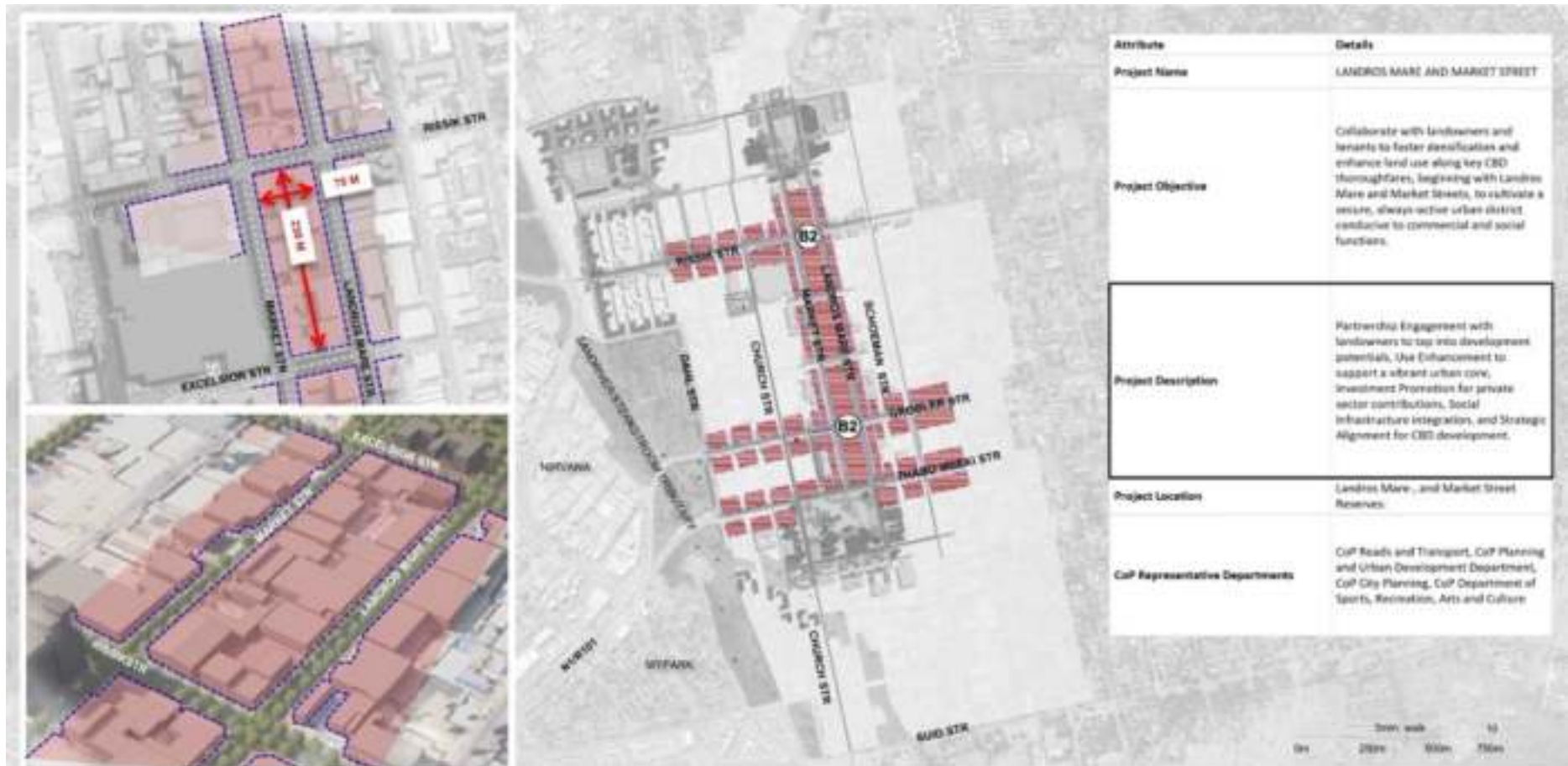


Diagram 134: Plan and Promote – B2

▪ **B3 – Northern Gateway Precinct Development:**

Project Number:	B3
Project Name:	NORTHERN GATEWAY PRECINCT – Civic and Cultural Node: DEVELOPMENT OPPORTUNITIES
Project Description:	<p>Site Collaboration: Engage with landowners near SABC PARK to evaluate both occupied and vacant sites for their suitability for the "Northern Gateway Precinct."</p> <p>Urban Density: Investigate incentives for densifying and diversifying uses along SABC PARK's perimeter to foster a vibrant, mixed-use area operational round-the-clock.</p> <p>Government Presence: Assess the impact of integrating governmental facilities on the CBD's dynamism and functionality.</p> <p>Project Support: This initiative is reinforced by 'Design and Deliver Project A3 – SABC PARK Civic and Cultural Node: Road and Public Environment Upgrades,' enhancing its strategic alignment with broader urban development goals.</p>
Project Objective:	Identify and unlock development opportunities along SABC Park's edges to develop a dynamic "Northern Gateway Node" - amplifying the precinct's activity, land use, and functionality, aligning with the "Design and Deliver Project A3 – SABC PARK Civic and Cultural Node: Road and Public Environment Upgrades" to foster a cohesive urban renewal.
Project Type:	'Plan and Promote' – incentivise private sector investment
Location (refer to diagram):	SABC Park and Adjacent/Surrounding Street Reserves: Landros Mare-, Market-, Excelsior-, And Bodenstein Streets
Property Description:	Road Reserve of the above-mentioned streets
Property Ownership:	CoP Roads and Transport, and Private Landowners
Responsibility / Implementing Department:	CoP Land Use Department CoP City Planning CoP Department of Sports, Recreation, Arts and Culture
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct, Road Master Plan, Site Investigation / Survey
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy)
Private Sector Role Player/s:	Business, Community and NGOs

Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority; Department of Water and Sanitation, Limpopo Department of Economic Development, Environment and Tourism
Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020

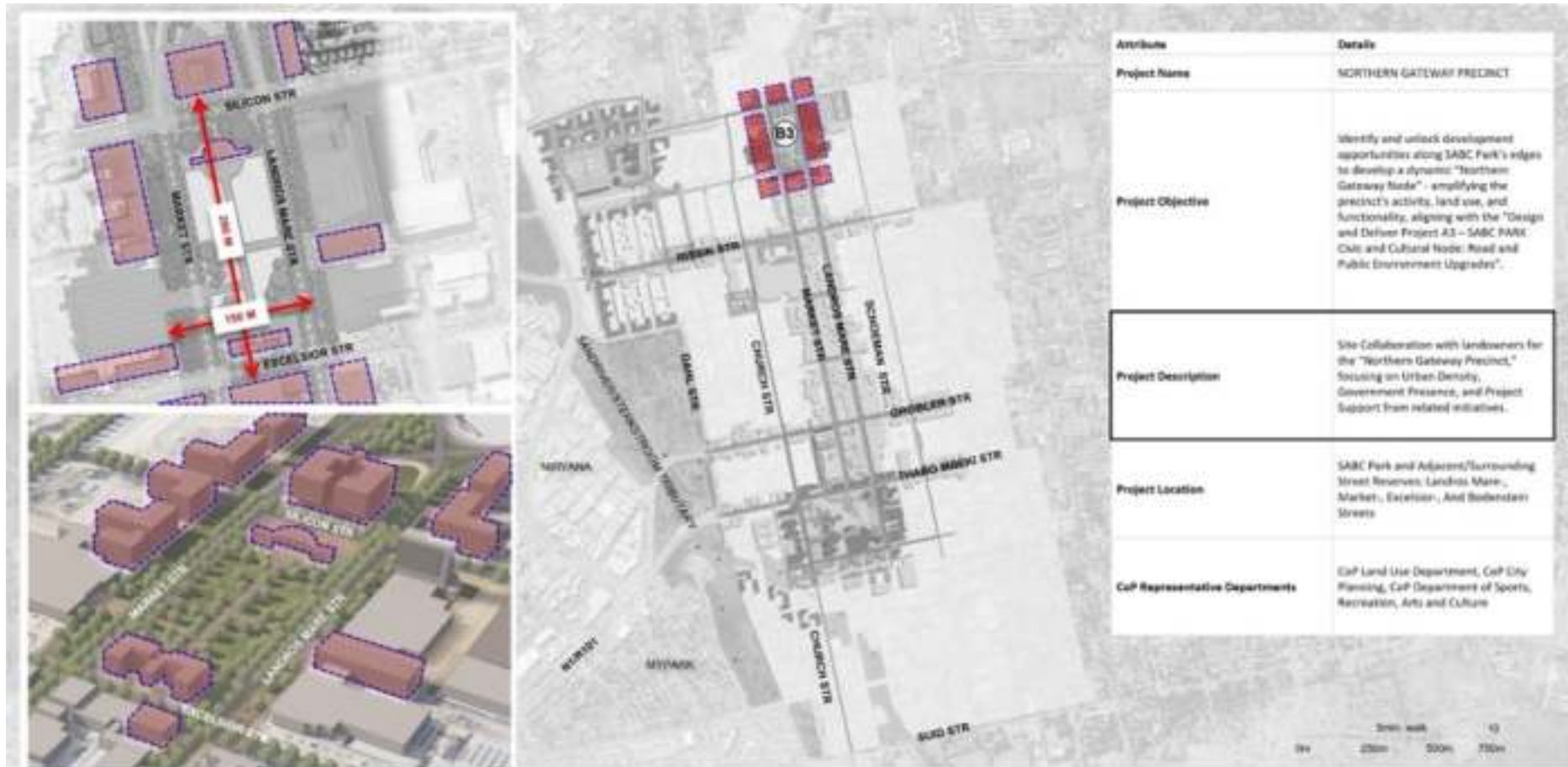


Diagram 135: Plan and Promote – B3

▪ **B4 – Mixed-Use Housing in Northwest Transport Precinct:**

Project Number:	B4
Project Name:	MIXED USE HOUSING: NORTH-WEST TRANSPORT PRECINCT <i>Silicon Street West</i>
Project Description:	Leverage the potential of Silicon Street, west of the railway, near Polokwane Bus Station and Itsoseng Entrepreneurial Centre, to create a vibrant mixed-use residential precinct offering diverse tenure options. This initiative presents a prime opportunity for the CoP Municipality to engage in 'Design and Deliver' strategies or foster 'Plan and Promote' initiatives through Public-Private Partnerships, or a blend of both approaches, to transform large vacant lots into dynamic urban living spaces to invigorate the CBD.
Project Objective:	Identify and unlock development opportunities along SABC Park's edges to develop a dynamic "Northern Gateway Node" - amplifying the precinct's activity, land use, and functionality, aligning with the "Design and Deliver Project A3 – SABC PARK Civic and Cultural Node: Road and Public Environment Upgrades" to foster a cohesive urban renewal.
Project Type:	'Plan and Promote' or 'Design and Deliver', - or a blended approach.
Location (refer to diagram):	Silicon Street West
Property Description:	Vacant Sites Adjacent Polokwane Bus Station and Itsoseng Entrepreneurial Centre.
Property Ownership:	CoP Roads and Transport
Responsibility / Implementing Department:	CoP Roads and Transport CoP Land Use Department CoP City Planning CoP Department of Housing CoP Department of Sports, Recreation, Arts and Culture
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct, Road Master Plan, Site Investigation / Survey
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Provincial Heritage Resources Authority; Department of Water and Sanitation, Limpopo Department of Economic Development, Environment and Tourism; Limpopo Department of Cooperative Governance, Human Settlements and Traditional Affairs

Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management National Water Act, 1998 (Act No. 36 of 1998) (as amended)-Section 21-Water Use National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended)-Environmental Impact Assessment Regulations, 2014 (as amended) City of Polokwane Water and Sanitation By-Laws, 2011 (Local Authority Notice 196) Draft Air Quality Management By-Law, 2020

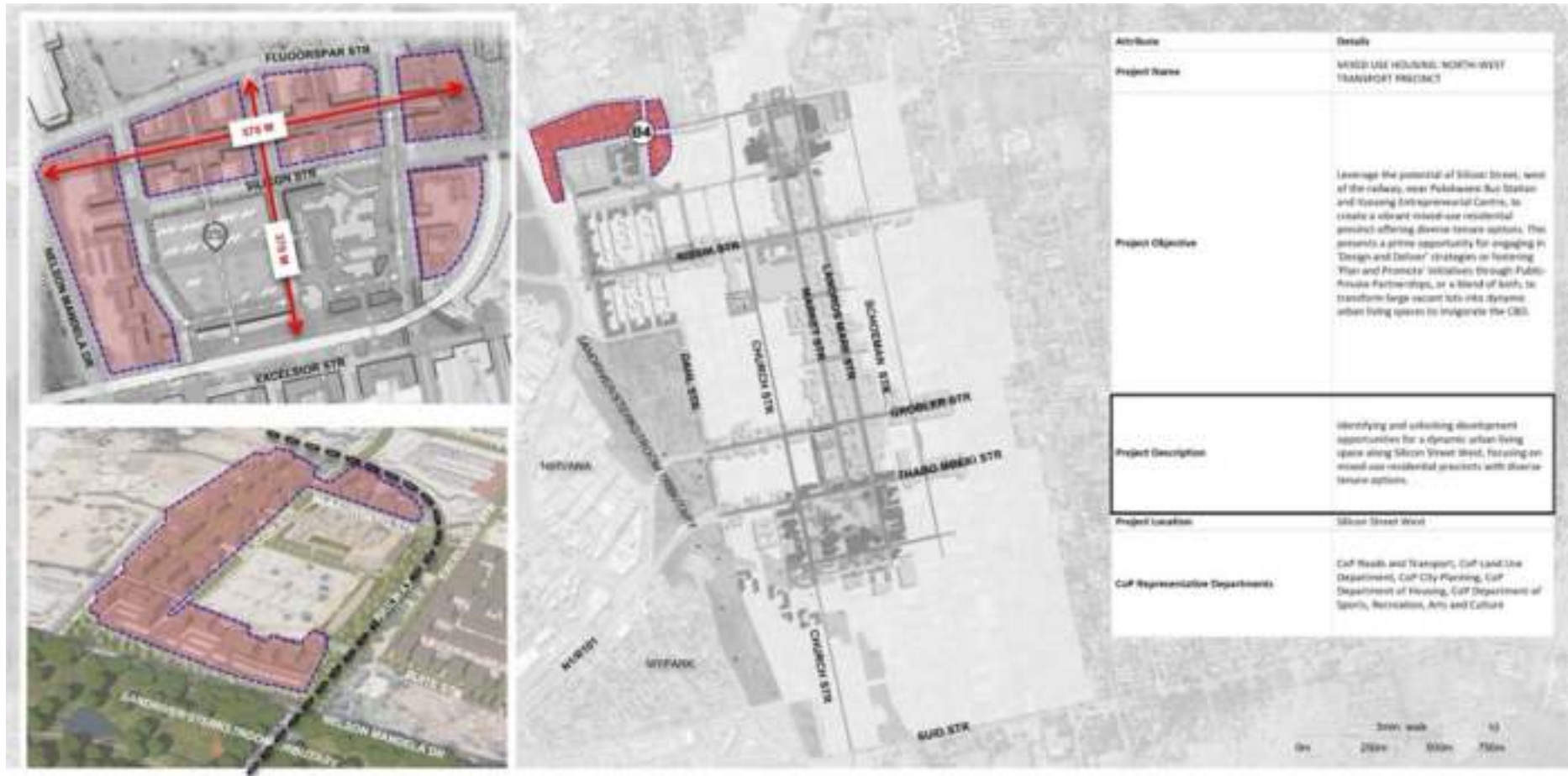


Diagram 136: Plan and Promote – B4

▪ **B5 – Rissik Street Gateway Precinct Revitalization:**

Project Number:	B5
Project Name:	RISSIK STREET GATEWAY PRECINCT SPATIAL TRANSFORMATION FOR RESPONSIVE DENSIFICATION
Project Description:	Aimed at combating the densification crisis, this initiative targets the Rissik Street Gateway Precinct to rectify the issue of overcrowding. The project will address the non-compliance of private landowners with statutory development rights for inner-city housing, which has led to slum-like conditions, by implementing strategic interventions and regulatory enforcement to promote sustainable urban living standards.
Project Objective:	Engage intensively with landowners and tenants to mitigate overcrowding by transitioning residents to safer, well-positioned inner-city housing, ensuring public safety. Simultaneously, incentivize private landowners to progressively redevelop the area into higher density housing, leveraging public-private partnership incentives and other supportive measures to foster a sustainable and vibrant urban community and precinct revitalisation.
Project Type:	'Plan and Promote' or 'Design and Deliver', - or a blended approach.
Location (refer to diagram):	<i>EXCELSIOR (NORTH), TO DEVENISH (SOUTH) BUIE (WEST) TO DAHL (EAST) STREET</i>
Property Description:	Private – Predominantly Residential (challenges with enforcing controls with over-crowding), with Private Commercial functions along Excelsior, Rissik, and Buite Streets.
Property Ownership:	Private
Responsibility / Implementing Department:	CoP Land Use Department CoP Planning and Urban Development Department CoP Department of Housing CoP Department of Sports, Recreation, Arts and Culture
Priority:	High
Timeline:	3 Year Financial Cycle: 2024-2027
Programme Stages:	Planning & Specification, Precinct, Road Master Plan, Site Investigation / Survey
Internal CoP Role Player/s:	Ward Councillor (Ward Committee), Line Departments (City Planning, Environmental Resource Management, Roads & Stormwater, Energy), Leeto La Polokwane
Private Sector Role Player/s:	Business, Community and NGOs
Government Role Player/s:	Provincial Dept. of Roads and Transport; Limpopo Department of Cooperative Governance, Human Settlements and Traditional Affairs; Limpopo Provincial Heritage Resources Authority

Risks / Shortfalls:	Lack of funding may delay the project.
Benefits:	Improved public environment; improved legibility and connectivity, economic impetus.
Notes:	Link to tourism, cultural and heritage approach as many of the buildings have heritage status. Could be phased, prioritising the surrounding street reserves public environment for accessibility.
Potential Legal Requirements	National Heritage Resources Act, 1999 (Act No. 25 of 1999)-Section 38-Heritage Resources Management



Diagram 137: Plan and Promote – B5

14.2.3 STUDY AND STRATEGIZE PROJECTS

These projects involve in-depth research and strategy formulation to address the specific needs of the CBD:

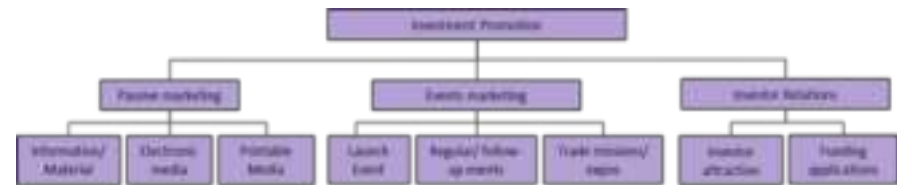
- **MARKETING AND INVESTMENT PROGRAMME:**
 - designed to enhance the CBD's visibility to investors and the community at large. By identifying and promoting the CBD's unique value proposition, it will aim to draw investment and drive economic growth. Critical elements will include developing a strong brand for the CBD, utilizing various marketing channels, and creating investment incentives.
- **SAFETY AND SECURITY PROGRAMME:**
 - creating a secure environment through the integration of advanced technology, community policing initiatives, and partnerships with local law enforcement agencies. The process will prioritize actions such as risk assessments, response strategies, and community engagement to foster a safe atmosphere conducive to business and leisure activities.
- **URBAN MANAGEMENT AND MAINTENANCE STRATEGY:**
 - creating a sustainable and efficiently managed CBD, aligning with the broader goals of the Polokwane Urban Development Framework.
- **ESTABLISHING A DESIGN REVIEW COMMITTEE:**
 - To uphold the architectural and aesthetic standards of the CBD.

MARKETING AND INVESTMENT PROGRAMME:

The Marketing and Investment Programme serves as a strategic tool to showcase the Polokwane CBD's potential and to secure the confidence of investors. Prioritizing initiatives that increase visibility and desirability, the programme should focus on the following:

- **Investor Outreach:**
 - Conduct targeted outreach to potential investors with data-driven presentations on CBD growth and opportunities.
- **Promotional Campaigns:**
 - Develop and execute marketing campaigns that highlight the CBD's development initiatives and future potential.
- **Investment Incentives:**
 - Create a portfolio of incentives to entice investment into the CBD, such as tax breaks or expedited permitting processes.

Investment promotion should encompass at least the following actions:



Effective marketing and investment strategies will be gauged by increased investment flows, a higher occupancy rate of commercial spaces, and a burgeoning reputation of the CBD as a premier business hub. A monitoring and evaluation framework should be developed with key performance indicators to determine the success of implementation.

SAFETY AND SECURITY PROGRAMME:

A robust Safety and Security Programme is integral to establishing a resilient CBD. The programme must address the following key elements:

- **Technology Integration:**
 - Utilize surveillance technology and data analytics to proactively manage security concerns.
- **Community Involvement:**
 - Engage residents and business owners in a collaborative security network, fostering shared responsibility.
- **Law Enforcement Partnerships:**
 - Strengthen ties with local police and private security firms to enhance response capabilities and preventative measures.
- **Create a CBD community policing forum:**
 - Hold regular meetings and walkabouts with police, security companies, building owners, business owners, residents, Councillor, etc to identify issues and promote cooperation.

The success of this programme will be reflected in reduced crime rates, improved public confidence, and a supportive environment for business and community activities.

URBAN MANAGEMENT AND MAINTENANCE STRATEGY:

The Urban Management Strategy for the Polokwane CBD is committed to excellence, encompassing a full spectrum of services essential for both attracting private investment and maintaining the vibrancy of the urban core. Recognizing the critical impact that service interruptions can have on the quality of urban life and business continuity, the strategy includes a robust framework for managing service breakdowns and outages, ensuring rapid response and resolution.

Key Strategy Components:

- **Service Monitoring and Response:**
 - Establishing a proactive monitoring system to detect service disruptions in real-time and deploy swift corrective measures.
- **Outage Reporting and Follow-Up:**
 - Creating an efficient reporting system for the public to report outages, with a transparent follow-up process that ensures accountability and timely restoration.
- **Educational Programs:**
 - Launching training for informal traders and the public on waste management, sustainability, and urban living standards.
- **Enforcement and Compliance:**
 - Implementing a strict no-tolerance stance on littering and illegal dumping, enforced through municipal bylaws.
- **Waste Management Solutions:**
 - Introducing tailored waste collection and recycling for informal trade areas.
- **Sustainable Infrastructure:**
 - Building green infrastructure for resilience and sustainability.
- **Energy and Infrastructure:**
 - Enhancing energy efficiency and supporting renewable energy for a resilient grid.
- **Stakeholder Engagement:**
 - Facilitating regular dialogues with all community members to address urban challenges collaboratively.
- **Budget Considerations:**
 - Crafting a phased, budget-aligned action plan that focuses on impactful and resource-efficient initiatives.

This strategy is designed to merge educational outreach, strict enforcement, and active stakeholder involvement to foster a well-managed and sustainable urban environment, propelling the Polokwane CBD towards a model of urban management excellence.

- **Service Continuity:**
 - Addressing and pre-empting service interruptions, and ensuring their rapid resolution are critical for the CBD's overarching functionality.
- **Institutional Structures:**
 - The Municipality leads urban management with support from collaborative efforts like Block Watch Committees and Business Associations, which are instrumental in reporting and responding to outages.
- **Development Plan Oversight:**
 - A designated point within the Municipality will oversee the Development Plan, maintaining communication channels for outage reporting and resolution coordination.
- **Implementation and Management Vehicles:**
 - Leveraging tools such as the National Treasury Urban Development Zone and other designated areas to facilitate effective management responses to service disruptions.

These integrated strategies ensure a coordinated, effective approach to urban management, laying a solid foundation for a thriving, sustainable, and well-governed CBD.

DESIGN REVIEW COMMITTEE:

To ensure consistency with the CoP CBD Urban Development Framework's vision, the establishment of a *Design and Development Review Committee* is proposed. This committee, comprising municipal representatives and professional experts, will oversee the design and development of sites and public environment upgrades, ensuring alignment with the Masterplan and Development Control Manual.

- **Committee Formation:**
 - A diverse, multi-disciplinary steering committee will be established, dedicated to urban development.
- **Expertise Inclusion:**
 - We will assemble experts in urban planning, architecture, civil engineering, sustainability, economic development, and legal frameworks, including both municipal staff and external consultants.
- **Project Assessment:**
 - CBD project proposals will be thoroughly evaluated and prioritized according to their potential to spur economic revitalization and benefit the community.
- **Strategy Adaptation:**
 - Strategies will be dynamically refined to align with the Polokwane CBD Masterplan Implementation Strategy, responsive to urban trends and stakeholder input.
- **Continuous Improvement:**
 - We will engage in ongoing enhancements to the implementation process, drawing on analytics and stakeholder feedback.

Areas of Required Expertise:

- **Urban Integration and Architectural Quality:**
 - Ensuring designs enrich the CBD's aesthetic and functionality.
- **Engineering Integrity:**
 - Guaranteeing infrastructure resilience and sustainability.
- **Environmental Stewardship:**
 - Advancing eco-friendly practices and green spaces.
- **Financial Oversight:**

- Verifying economic viability within budgetary and financial frameworks.
- **Spatial Utilization:**
 - Maximizing the utility and benefit of urban spaces.
- **Policy Conformance:**
 - Aligning with CBD strategies and city regulations.
- **Private Sector Collaboration:**
 - Fostering partnerships to enhance investments and expertise.
- **Adaptive Management:**
 - Evolving strategies to meet the changing needs of urban centers.

economic growth within the envisioned timeframe, ensuring adaptability to the evolving urban landscape.

Committee Responsibilities:

- **Communication Excellence:**
 - Ensuring stakeholder engagement and training.
- **Reporting Transparency:**
 - Keeping all parties informed and involved.
- **Feedback Integration:**
 - Creating a system for proposal refinement and improvement.
- **Efficient Screening:**
 - Fast-tracking proposal prioritization.
- **Policy Review:**
 - Regular alignment checks with urban development objectives.
- **Sustainability Integration:**
 - Making environmental considerations a project staple.
- **Online Processing:**
 - Moving to a streamlined submission portal.
- **Documentation Clarity:**
 - Implementing standardized templates for uniformity.
- **Analytical Decision-Making:**
 - Leveraging data to inform strategic choices.
- **Conflict Resolution:**
 - Establishing fair and equitable dispute resolution protocols.

This committee's role is integral to the successful realization of the comprehensive and collaborative approach laid out in the Implementation Strategy for the rejuvenation of Polokwane CBD. Its creation is a key step in providing a structured pathway for sustainable urban development and

14.3 CONCLUSION

This Implementation Strategy offers a collaborative roadmap for the rejuvenation of Polokwane CBD, outlining a structured approach for the Municipality, private sector, and other stakeholders to jointly promote sustainable urban development and economic growth. The strategy's adaptable nature allows for regular updates, adapting to the dynamic landscape of urban development, and signifies a commitment to fostering a vibrant, resilient, and inclusive CBD.

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ANNEXURE A: PROPERTY MARKET OVERVIEW

16 PROPERTY MARKET OVERVIEW

16.1 STATUS QUO

Economy

The Gross Domestic Product (GDP) – an important indicator of economic performance – is used to compare economies and growth. The City of Polokwane’s the figures are as follows:

- CoP’s GDP doubled from R53.3 billion in 2011 to R115.1 billion in 2021 – contributing 24.41% to the Limpopo Province GDP and 1.85% to the National GDP.
- CoP achieved a growth rate of 7.1% in 2021 – like Limpopo Province’s 7.0% - substantially higher than the national figure of 4.9%.
- Over the past 10 years the municipality’s growth was 2.3% - more than double the provinces at 1.1%, and the country at 1.2%.

The Gross Value Added (GVA) provides a sector breakdown, where each sector is measured in terms of its value added to the local economy. 2021’s contributions are:

- community services: 34%,
- finance sector: 21%,
- trade sector: 20%,
- Agriculture, construction, and the electricity sectors are relatively undeveloped and together contributed only 5%.

Sector	% Distribution			Polokwane as % of	
	Polokwane	Limpopo	National	Capricorn	Limpopo
Agriculture	2%	3%	3%	67.6%	15.5%
Mining	11%	31%	9%	67.5%	8.7%
Manufacturing	4%	2%	13%	81.7%	35.5%

Electricity	1%	3%	3%	70.3%	8.8%
Construction	2%	2%	3%	78.5%	30.6%
Trade	20%	13%	13%	80.6%	35.6%
Transport	5%	4%	7%	82.0%	36.1%
Finance	21%	17%	24%	79.9%	30.7%
Community services	34%	24%	26%	77.4%	33.3%
Total	100%	100%	100%	77.4%	24.2%

Source: Kayamandi based on IHS Global Insight, 2022

Table 8: Gross value added by sector, 2021

CoP contributes 77% to Capricorn district’s GDP, and over 24% to Limpopo’s economy.

Over the past decade primary economic sector activities had the highest annual growth rate in Polokwane, namely:

- The agriculture sector: 6.75% positive-growth.
- The mining sector: 6.73% positive-growth.

The secondary economy had a much lower growth rate with only manufacturing achieving growth.

All tertiary economy sectors grew, with the highest being community services (2.98%) and finance (2.3%). These include:

- Community services: Community, Social and Personal Services:
 - Public administration and defence activities – all levels of government including police, judicial and administrative offices,
 - Education - public and private education of all types, provided by institutions and private teachers, on both full and part-time basis,
 - Health and social work,
 - Sewage and refuse disposal,
 - Activities of membership organisations including business, employers’ and professional organisations, trade unions, religious and political organisations,
 - Recreational, cultural, and sporting activities.

- Finance Sector: Financial Intermediation. Insurance, Real Estate and Business Services:
 - Banking, financing, and credit granting,
 - Insurance and pension funding,
 - Real estate activities,
 - Renting of machinery, equipment, and personal and household goods,
 - Computers and related activities,
 - Research and development,
 - Business activities including legal, accounting, marketing, management, architectural, engineering, advertising, and security.

- Trade Sector: Wholesale and retail trade, repair of motor vehicles, motorcycles, personal and household goods, and hotels and restaurants:
 - Wholesale trade,
 - Retail trade
 - Sale, maintenance and repair of motor vehicles and motorcycles and sale of fuel
 - Hotels and short stay accommodation
 - Restaurants, bars, and canteens.

The tertiary sector, along with manufacturing, are the largest sectoral contributors to the CoP. It is noteworthy that:

- Higher contributions in the community services and retail sectors align with national standards,
- The national economy holds a larger share in the manufacturing sector,
- Limpopo Province’s economy is distorted by the mining sector’s contribution of over 30%.

Population growth projections

Year	Source		
	IDP (IHS Insight 2022)	Global	Stats SA
Historical growth, 2011 to 2022	1.5%		1.2%
2022	874 112		828 993
Projected growth 2022 to 2025	1.4%		1.0%
2025	910 247		854 131

Table 9: Existing and projected population

Employment

The Polokwane economy employed:

- 171,000 in 2011,
- 264,000 in 2019,
- 240,000 in 2021 – lowered due to the impact of Covid 19.

The largest employment sectors in 2021:

- Community Services: 66,605 employees (27.77% of total employment)
- Trade: 58,493 employees (24.39% of total employment)
- Informal sector: 57,000 employees (23.6% of total employment). This figure has increased significantly from over 44 000 in 2011 – a growth of over 1200 per annum.

The trade sector recorded the highest number of informal employments with over 21 000 employees which is 38.3% of the total informal employment.

Size of property market

The 2015 CBD study approximates 1.6 million m² of developed area in the CBD of which:

- Retail contributed 28%,
- Offices 46%,
- Residential 7%
- Motor industry 6%.
- Other major uses included education and overnight accommodation which each contributed about 2%.

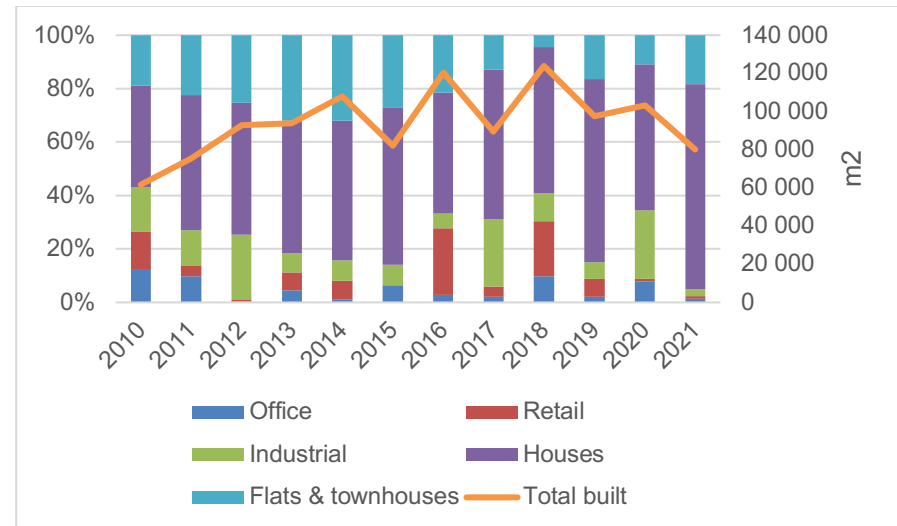
The size of this market has not changed significantly over the past seven years.

Identified and noteworthy spatial trends and agglomerations:

- Most blocks comprise a mix of uses.
- Retail is the dominant land use in the CBD – north of Civic Park (Jack Botes Park).
- Offices concentrate in the central core area, while low intensity offices extend toward Suid Street and east between Hans van Rensburg and Biccard Streets
- Government/Municipal uses are clustered in the central core area and towards the south-east.
- Residential dwellings mainly occur along the eastern boundary along Voortrekker Street
- In the north-western quadrant between Buite and Dahl Streets there is a residential area in decline mixed with informal activities
- Motor Trade is clustered at the two main entrances into the CBD, around Landros Maré Street and Mark Street to the north and between Grobler and Thabo Mbeki Street towards the west.
- Tertiary educational facilities and skills development mainly occur in upper stories in the central core area.

Property trends

Over the past 12 years nearly 615,000m² have been developed by the private sector in the Polokwane Municipality. The majority as can be expected is dwelling houses at nearly 360 000m² (58%) and flats and townhouses at 85,000m² or 14%.



Source: Kayamandi based on Stats SA, 2022

Diagram 138: Polokwane buildings completed by private sector (m²)

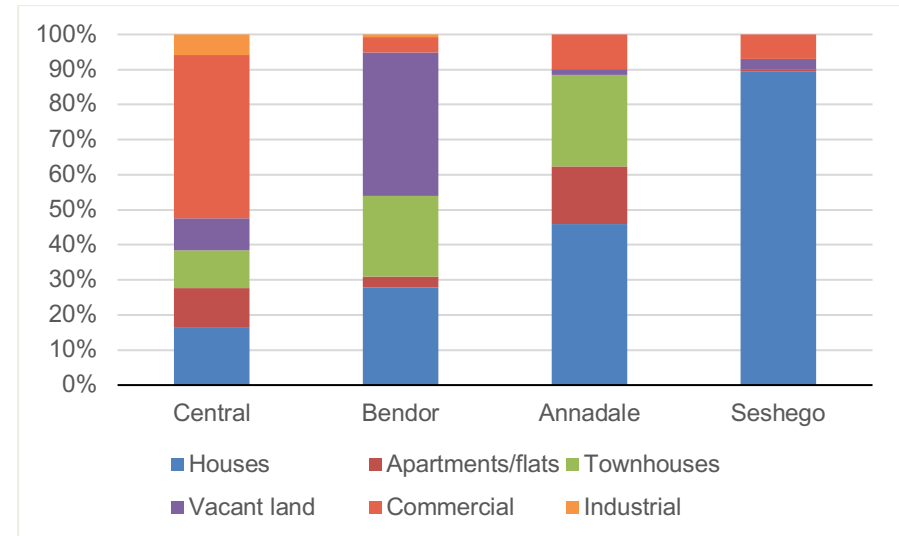
The commercial buildings developed in Polokwane over the previous 12 years totalled nearly 173 000m² of which industrial was the highest at 44%, followed closely by retail at 39% and then by offices at 17%. Over the second half of this period, retail showed the largest increase of 258%, up to 67,513m². Industry and offices showed a similar increase of 120% and 110% respectively, to 76 773m² and 28 527m². Development dramatically reduced in 2021 to less than 4 000m² from previous highs of over 50 000m² in 2018.



Source: Kayamandi based on Stats SA, 2022

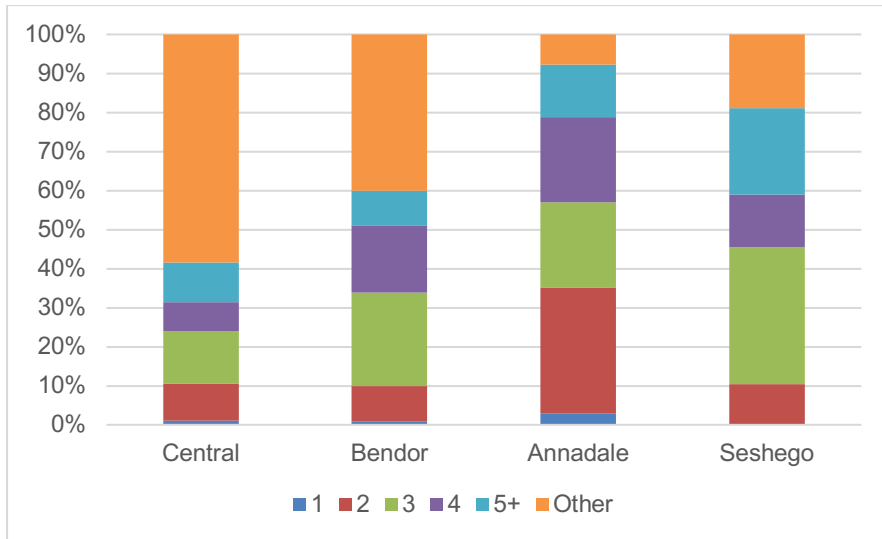
Diagram 139: Polokwane commercial buildings completed by private sector (m²)

Properties presently in the market in Polokwane Central (similar to CBD demarcation but extends further east to Oost Street) show that the majority of properties are commercial (offices and retail) followed by houses, flats and townhouses. The surrounding areas which are compared show their focus on residential rather than business related properties. The large number of commercial buildings in the market at 156 seems to show a softening of the sales market.



Source: Property24, 2022

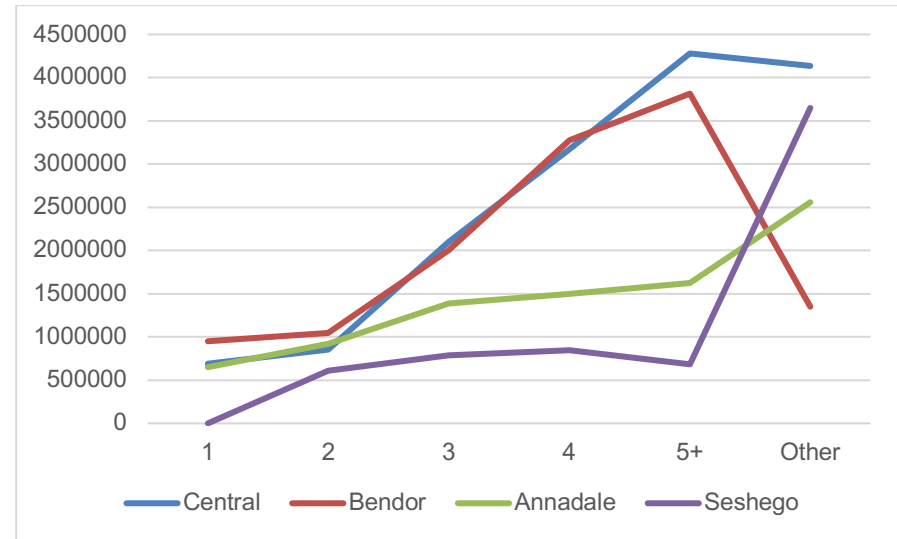
Diagram 140: Distribution of properties on market, 2022



Source: Property24, 2022

Diagram 141:

The price of properties on the market is more difficult to determine by type but the diagram below provides an indication of commercial property prices per number of bedrooms. The Other type includes commercial, industrial, and vacant stands. Property prices in Polokwane Central seem to be robust at a price of over R4 million which is the highest. The relatively low price for Other in Bendor is due to the large number of vacant stands in the market.

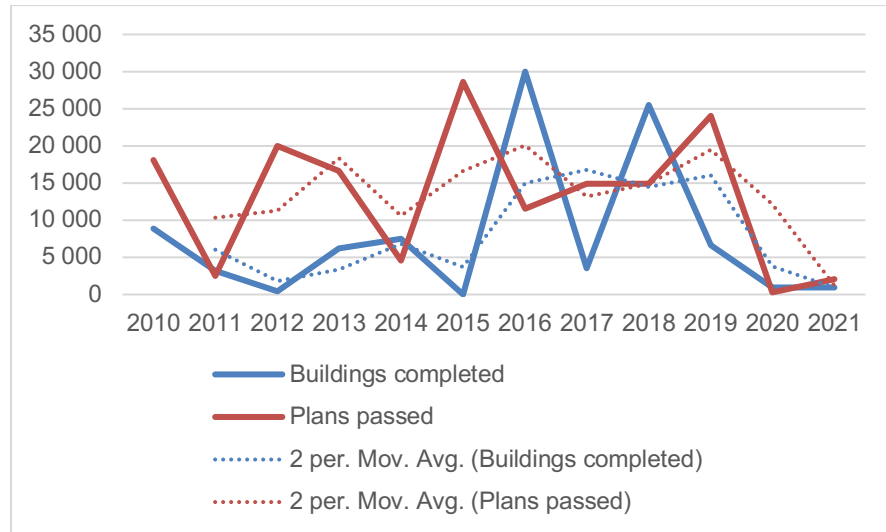


Source: Property24, 2022

Diagram 142:

Retail

Retail in the CBD is mainly clustered between Thabo Mbeki Street to the south, Biccard Street to the east, President Kruger Street to the west, and Excelsior Street in the north.



Source: Kayamandi based on Stats SA, 2022

Diagram 143: Retail building plans

Trends:

- Rentals are very active.
- Sales less attractive.
- No rental vacancies in CBD.
- Central core has more queries than stock available for rental.

Future trends:

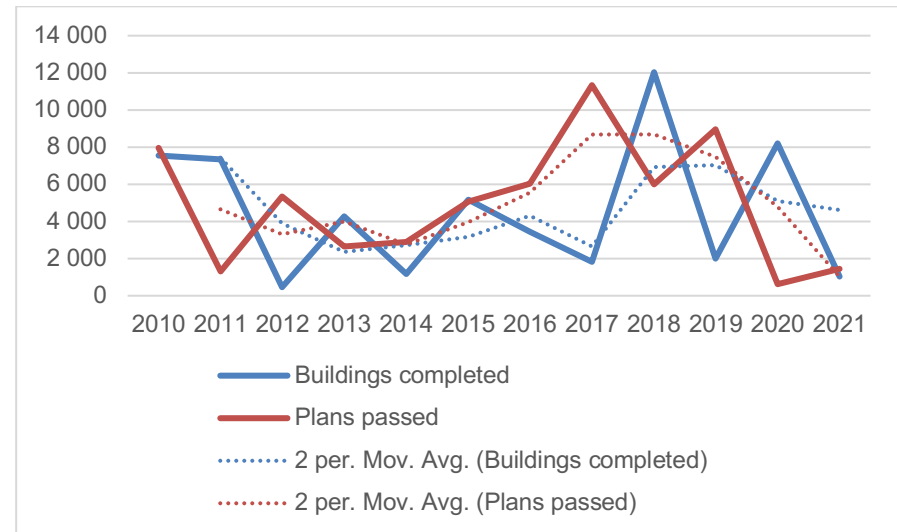
- Smaller retailers seeking street front retail in the core.
- Entrepreneurial training and formalisation of street trade in the core.
- ‘The Greenery’ – a new retail development on the old municipal nursery site at the corner of Grobler and Oost Street – just east of the CBD. The 11 000m² centre with 23 tenants will be anchored by Checkers, Woolworths Food and Woolworths Cellar, Clicks, Meat World and West Pack Lifestyle, and is

situated on the main routes entering and leaving the CBD from the east.

- New local centres, large peripheral nodes, and development corridors, draw retail developments away from the CBD – especially those relating to the middle- to upper income groups.

Office

Office use is more widely distributed than retail, although there is a concentration in the central and southern parts. The largest office block concentration is south of Thabo Mbeki Street. Government and municipal offices are mainly clustered in the central, eastern and south-eastern parts of the CBD area, while the low intensity offices and related uses are clustered in the southwestern area.



Source: Kayamandi based on Stats SA, 2022

Diagram 144: Office building plans.

Office rental figures for Polokwane do not differentiate between market rental rates in the CBD, compared to decentralised nodes. Office rentals in Polokwane therefore appear elevated, at the higher end of the scale when compared to other CBD's.

Area	A+	A	B	C
Polokwane	166,67	120,93	88,75	73,33
Bloemfontein CBD	-	112,00	85,00	73,33
Pretoria CBD	-	97,50	84,00	65,00
Port Elizabeth CBD	-	70,63	61,25	48,75
East London CBD	-	-	70,00	60,00

Source: Rode's Report, 2021

Table 10: Office rentals (Rand/rentable m2 per month), 2021

The standard deviation for Polokwane is much higher than the other cities perhaps due to the wide variety of offices and locations throughout Polokwane.

Area	A+	A	B	C
Polokwane	22,48	13,41	15,56	10,27
Bloemfontein CBD	-	2,00	4,71	10,27
Pretoria CBD	-	12,50	14,00	0,00
Port Elizabeth CBD	-	2,72	4,15	8,93
East London CBD	-	-	5,00	5,00

Source: Rode's Report, 2021

Standard deviation of market rental rates (Rands/month)

Table 11: Gross value added by sector, 2021

The main attractions/attractors of office space in the CBD include:

- Provincial capital status.
- Provincial Government.
- Capricorn District Municipality.
- Polokwane Municipality.
- Polokwane High Court and surrounding legal offices.

- Medical node on eastern boundary.

Trends:

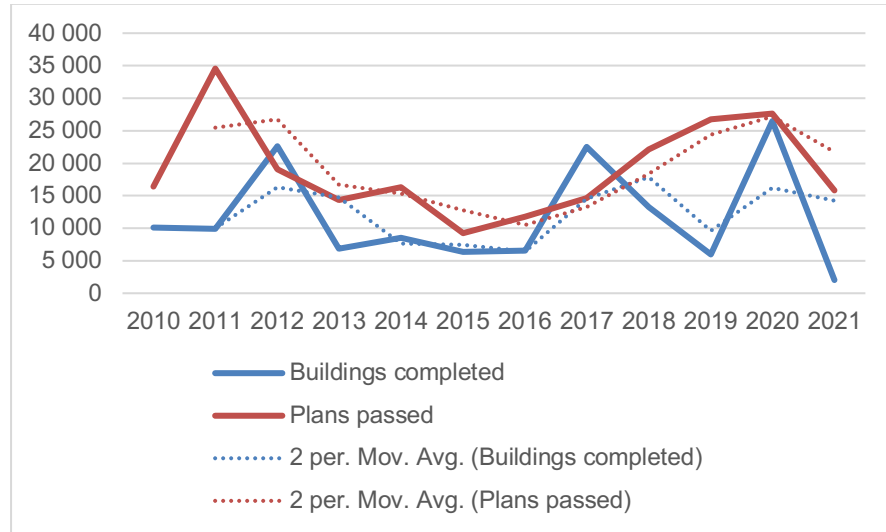
- Office vacancies have increased.
- Office rentals declined with lower escalations.
- Larger offices for rent not finding tenants.
- Small demand for offices to rent smaller than 100m².
- Newly developed office building in Biccard Street still vacant.
- Offices and office buildings not selling.
- Office and business centres with hot desks, short rentals with facilities have some demand.
- Government appears to be consolidating space with no new rentals and not renewing some leases.

Future trends:

- Movement from lower- to A-grade or decentralised offices, due to lower rentals and better amenities.
- Due to loadshedding, green energy and generators will become more sought after, which is difficult to install in older buildings.
- Low business confidence does not bode well for office demand with firms hesitant to expand their premises or hire new employees. In fact, many companies are reducing their office space and the number of employees, while also signing shorter leases.
- Greater levels of remote working compared to pre-lockdown levels are constraining demand for space, while the more effective management of desk space via sharing could also lead to many companies having less office space needs in future.
- Government, finance, and business services employment numbers are showing very little growth, and these employment trends are key drivers of demand for office space.
- It is expected if low demand continues that owners of older office spaces will consider restructuring their properties for other uses, including residential, educational, religious, medical and storage spaces. This has already happened to a degree in the CBD.

Industrial/warehousing

There is little industrial activity in the CBD. Some warehousing and building supply retailers are in the central, western portion of the CBD in light-industry premises. Larger industrial zones border the CBD, clustering along the railway system to the west and north of the CBD.



Source: Kayamandi based on Stats SA, 2022

Diagram 145: Industrial & warehousing building plans

Trends:

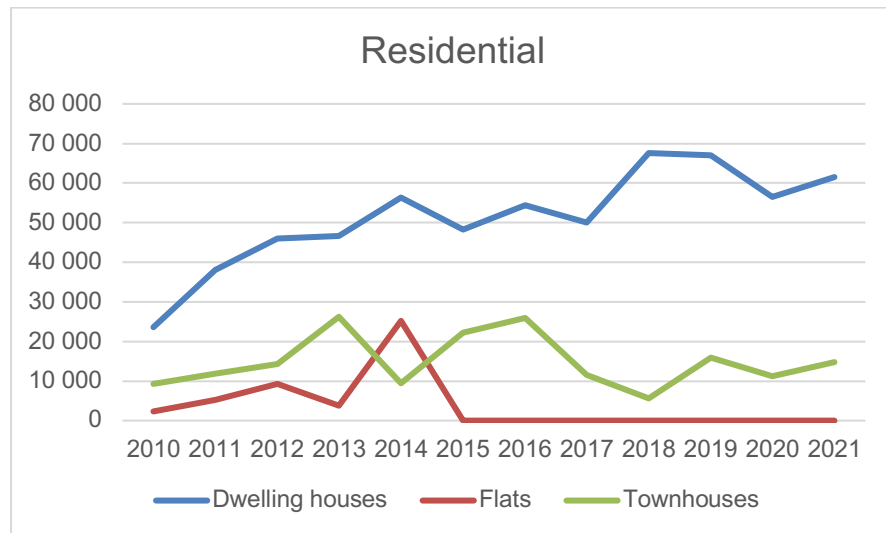
- No demand for investment purpose purchasing in CBD.
- Some demand outside CBD to purchase for own occupation.
- The industrial market is on a better footing than office- and retail property markets, which can be attributed to the largely non-speculative nature of industrial developments.

Future trends:

- The strong and growing demand for logistics, boosted by the growing popularity of online retail will boost demand for deconcentrated warehouses – and possibly larger warehouses – but this market is unlikely to locate to the CBD.
- Companies scaling down and seeking smaller premises – especially relating to public sales and traffic – could find the CBD attractive.

Residential

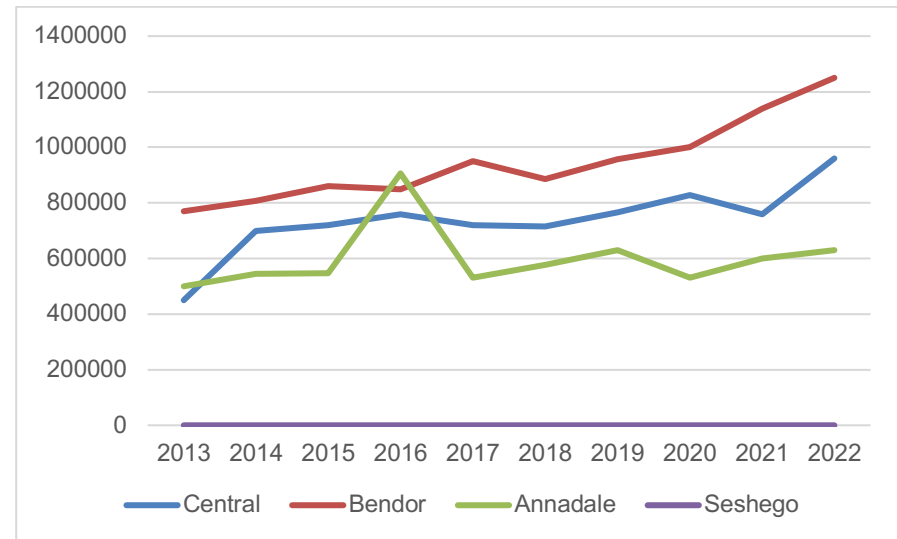
Single residential dwellings almost exclusively occur in the eastern part of the CBD, between Biccard- and Voortrekker Streets. The north-western portion of the CBD in the area between Buite and Dahl Streets mostly comprise of informal uses in existing dwellings. Cluster housing and flats are mainly concentrated in the central core area in the area between Market- and Biccard Streets. Compared to office and retail space, residential use is quite insignificant within the Polokwane CBD area.



Source: Kayamandi based on Stats SA, 2022

Diagram 146: Residential building statistics.

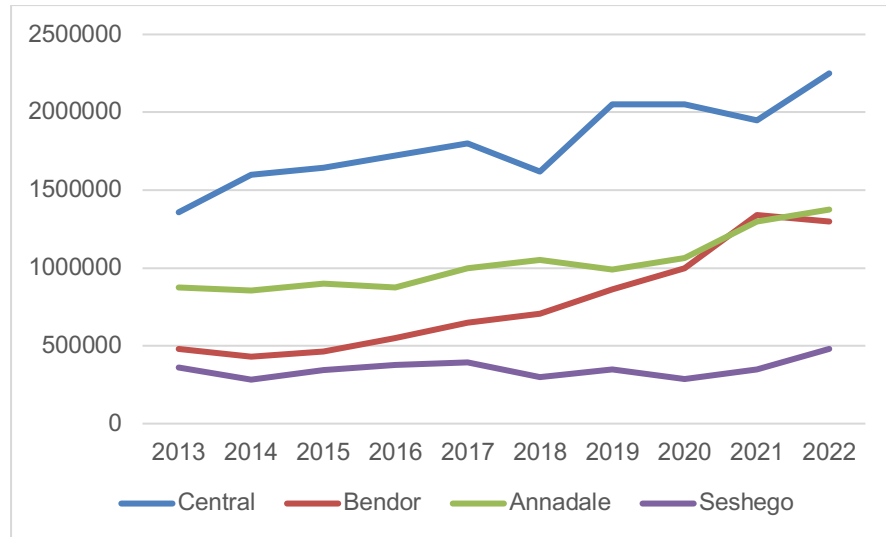
The sectional title market in the CBD is active with approximately 100 sales per year. The average price although increasing yearly is below R1 million. This is higher than Annadale at R600 000 and below Bendor at over R1.2 million.



Source: Property24, 2022

Diagram 147: Sectional title average sold price.

Approximately 200 sales of full title erf occur yearly in the Central area, with present prices above R2 million. These figures are influenced by buyers wanting to convert the large stands to other uses. Full title stands in the comparative areas are significantly lower with Seshego at around 0.5 million and Annadale and Bendor similar at around R1.35 million.



Source: Property24, 2022

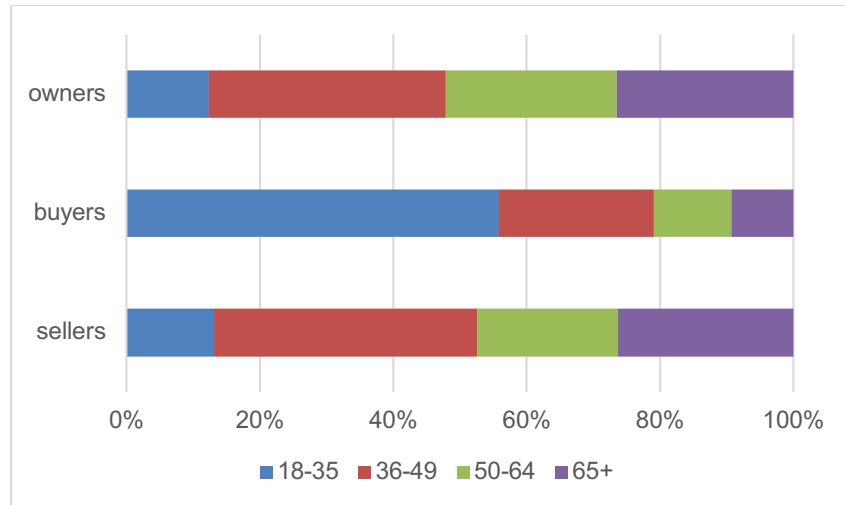
Diagram 148: Full title stands average sold price.

New buyers in Polokwane Central are predominantly under 49 years of age, - about half being under 35. Existing ownership in the area which is predominantly of a much older age group. This highlights the trend of older persons selling at retirement age, or due to the rapidly changing land uses and wanting to relocate. Younger buyers are especially attracted to sectional title units due to the good location and reasonable prices. Annadale shares the same trend as Polokwane Central, while in Bendor the greatest demand originates from the 36-49 age group. Seshego has the lowest percentage of buyers in their youth.



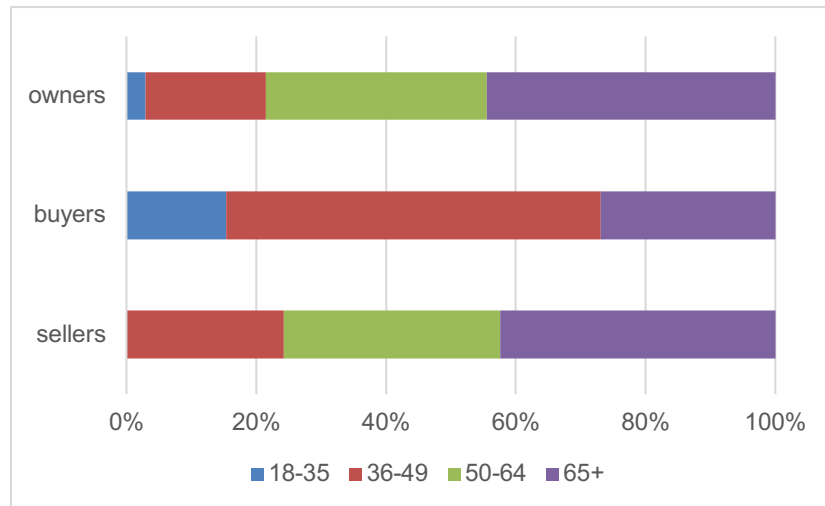
Source: Property24, 2022

Diagram 149: Ages of buyers and owners.



Source: Property24, 2022

Diagram 150: Central Area sectional title age groups.



Source: Property24, 2022

Diagram 151: Central Area freehold title age groups.

Subsidy housing

The housing demand is estimated at 57 000 including informal settlements households, households in rural areas, blocked housing backlog, gap housing, and greenfield housing development. The overwhelming majority of these households have a monthly income of less than R3 500 and are living in overcrowded conditions and in informal houses. Between 2016 and 2020 the municipality delivered well over 5 000 housing opportunities including serviced land. However, the rate of new housing need is overwhelming in relation the supply.

To deal with this challenge, the municipality has identified and demarcated two locations as Priority Housing Development Areas (PHDA's):

- Polokwane R71 corridor (starting from Ramahlodi Park to Boyne)
- South-western Gateway corridor (starting RBA taking Matlala road up to Sengatane, including Blood River).

The PHDAs are intended to advance Human Settlements Spatial Transformation and Consolidation by ensuring that the delivery of housing is used to restructure and revitalise towns and cities, strengthen the livelihood prospects of households and overcome apartheid spatial patterns by fostering integrated urban forms.

Rental housing

The municipality established an entity called Thabatshweu Housing Company Pty, t/a Polokwane Housing Association (PHA), with a mandate of developing and managing rental housing within its jurisdictional area. The municipality, in support of the rental housing initiatives avail land to PHA and has designated Restructuring Zones to enable PHA to access the Restructuring Capital Grant (RCG) administered by SHRA for social housing development. Polokwane Housing Association is currently managing 697 rental units of which 508 are social housing and 189 are Community Residential Units (CRU).

Trends:

- High demand for rental of flats in the CBD
- Good demand for purchase of sectional title units up to R1.5 million
- Little demand for purchases above R1.5 million
- Not much demand for stands to convert to other uses.
- Student accommodation demand declined during Covid-19, but market is making a recovery.

Future trends:

- Buying activity could soften as affordability continue to deteriorate due to steeper interest rate increases and higher living costs.
- No new single residential will develop in the CBD but new flats and townhouses at the lower end of the scale could prove popular.
- Office space could be converted into residential units for rent if it can be undertaken affordably. Policing of standards by the municipality will be important.

National view of housing market by FNB Property Barometer:

- The affordable market: Expect price growth to moderate this year, relative to the strong growth in the prior few years, as labour market weaknesses and higher interest rates erode affordability. Importantly, however, greater focus on this segment by some lenders, which has yielded innovations to improve affordability such as the greater uptake of longer duration mortgages (e.g. 360 months payment term; collective buying schemes; and the better administration of FLISP1) should provide impetus. In part, these dynamics are already reflected in the Estate Agents survey, which shows relative optimism in this segment. Given the inherent property supply deficit and the general preference for ownership, we expect limited downward pressure on price growth in the segment.
- Middle priced segments: Buying activity and house price growth should continue moderating from unusually strong levels post-pandemic, as interest rate increases weigh, and rent-to-ownership migration dries up. Our estate agents survey also

sees a moderation in activity in the coming months, particularly in the R1.6m-R2.6m price bracket, which was among the post-pandemic outperformers.

- Affluent markets: Buying activity has been supported by good pricing, strong recovery in non-labour income, post-pandemic improvement in balance sheets and the work from home trend. Supply-side factors should also remain supportive of price growth as emigration-related sales have slowed since the recent peak in 2019 and there is less supply pressure from the construction of new properties.
- Rental market: The gradual normalisation in rental inflation is in line with improved mobility as more people revert to in-office work, along with the recovery in aggregate incomes and household demand. However, the pace of recovery will continue to be constrained by weak employment growth, full-time employment in particular and a rising cost of living. Higher petrol prices may also push many to continue working from home, but this may be dampened by load shedding. Higher interest rates may divert some homeownership demand to rentals, while pushing some landlords to increase rental escalations.

Motor industry

Most motor industry related activities are concentrated around the central-western and northern entrances into town which historically formed part of the N1 link through the CBD area.

Trends:

- A number of dealers have opened new premises at the Baobab Gardens Motor City and at the southern gateway at Nirvana.

Future trends:

- Possibly more dealers moving to the above new nodes especially if conditions deteriorate in the CBD and leases run out. Motor dealer owner-built facilities will be less likely to relocate.

Education

Situated mainly in the central core with the major facilities being the Tshwane University of Technology Campus and the Itsoseng Entrepreneurial Centre in the north and the UNISA Polokwane Campus in the south. The other educational facilities provide a wide range and diversity of education and skills development and are an important asset to the CBD.

Facilities identified in the CBD include:

- ABM College SA
- AC Fashion School
- Asante Health and Skincare Institute
- Avuxeni Computer Academy
- Best Performers College
- Bolton College
- Boston City Campus & Business College
- Brooklyn City College
- Capricorn College for TVET
- College of Africa
- DAM School of Policing
- Destiny Skills Development College
- Destiny Training Centre
- Gauteng City College Polokwane Campus
- Gauteng Technical College
- Gigimo Tourism Academy
- Greenlane College
- Heartlines TVET College
- Hills Training Solutions
- ICollege Polokwane Campus
- Intec College
- Integrity College
- Jeppe College
- Johannesburg Institute of Engineering and Technology
- Kahisano Training Services
- Limpopo College of Nursing
- Limpopo Community Education and Training College
- MANCOSA Polokwane

- MKL Security Training College
- MTech Mega College
- NOSA College Polokwane
- Parkton College
- Parkwood Academy
- Polokwane Centre of Education
- Polokwane Learning Academy
- Polokwane Technology Institute
- Pro-learning College
- Prospectus AT Computer Schools
- Raidhi School of Health Studies
- Richfield Polokwane Campus
- RM Training Centre
- Rosebank College Polokwane Campus
- Rostec College
- Saint Ignatious College
- Salitig Training College
- South African Abet Development Agency
- Spencer Forklift, TLB Training Academy
- Tirisano Skills Training
- Witbank Engineering Varsity

Trends:

- It is understood that many facilities suffered hardships during Covid-19 and found it difficult to bounce back.
- Some of the facilities are not up to standard and require upgrading.

Future trends:

- The education sector is important in the CBD and has taken up the slack from the deteriorating office sector. The growth potential is however unknown.

Tourism

Hotel and overnight accommodation are mainly clustered around the eastern entrance into the CBD around Thabo Mbeki Street. Guesthouses occur quite frequently in the far-western strip fronting Voortrekker Street.

Trends:

- The tourism and accommodation sector were very negatively affected by Covid, and it appears that it has not yet recovered in Polokwane.
- Business tourism down as remote work, virtual meetings and financial constraints has led to reduced travel.
- Due to low demand some guesthouses have converted to student accommodation.

Future trends:

- Covid-19 induced modern communication (Zoom, Teams, etc) will continue to impact less efficient physical travel which will mean accommodation establishments may have to be less dependent on domestic business travel on a more permanent basis.

16.2 CURRENT PLANS, POLICIES AND PROJECTS

Local Economic Development (LED) strategy (2020-2024)

The strategy advocates for the strengthening of the multi-sectoral response against the rising levels of unemployment, inequality and poverty facing PLM.

- Vision: Towards a job absorbing smart economy
- Goals:
 - Reduction of unemployment rate.
 - Report a steady GVA growth rate.
 - Improve ease-of-doing business.
 - Promote economic inclusion and social cohesion.

- Enhance development coordination capabilities.

- Strategic objectives:

- Prioritization of high job creation investments.
- Unleash sectoral potential and growth.
- Enhance investment competitiveness.
- Widen access to economic opportunities and choices.
- Strengthen multi-sectoral response.

- Impact areas:

- Improvement of job absorption environment
- Re-energisation of economic drivers
- Improvement of investment climate
- Business development acceleration
- Increased synergies, collaboration, and partnership

- Substantive issues:

- The need to reposition the City of Polokwane as the choicest destination of domestic and foreign direct investment (FDI)
- The desire to diversify the City of Polokwane's service-dominated economy.
- The desire to improve the job absorption capacity of the local economy.
- The need to address existing development disparities between rural and urban clusters.
- The need to ensure that the local economy benefits different demographic and social groups.

- Agriculture sector growth strategies:

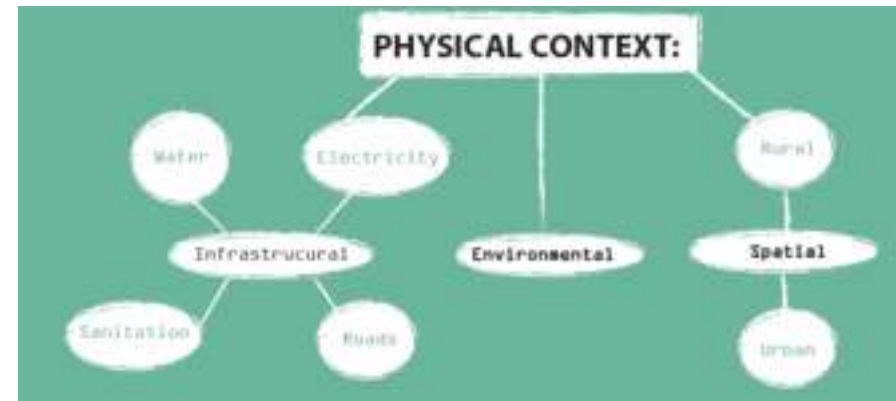
- Urban agriculture - the city pledges to identify, zone and allocate arable land for urban agriculture purposes.
- Agric-park - concept is designed in such a way that it brings farmers, transporters, produce beneficiaries, traders, all inputs and equipment suppliers under a single trading platform.
- Agri-processing industries - capitalising on its centrality, modern transport network and its unrivalled purchasing power.

- Mining sector growth strategies:
 - Mining beneficiation - opportunities exist for the city to establish secondary and tertiary mining activities.
 - Mining Supply Park – capitalise on its position as Limpopo’s commercial hub to establish a supply park to provide inputs, parts, accessories, protective gear, and equipment.
- Manufacturing sector growth strategies:
 - Industrial parks - revitalisation of the Seshego Industrial Park and the development of a new park in Mankweng
 - Light industries – the city recently zoned, serviced and allocated Extension 26/5 to light industries. The idea is to build affordable and secure factory shells and rent them out to small-scale manufacturers such as welders, carpentry, dress makers, etc.
 - Science and technology Park - encourage hi-tech industries or innovation-driven firms.
 - Special Economic Zone status – application required.
- Construction sector growth strategies:
 - New projects and infrastructure
- Tourism sector growth strategies:
 - Polokwane International Convention Centre (PICC) which has been on the cards for the past 15 years is critical and important for the metropolitan city status.
 - Introduce connection flights from Polokwane to key tourist and trade routes in the province.
- Medical sector growth strategies
 - Polokwane Academic Hospital
 - Cardiac Hospital
- Education and training sector growth strategies:
 - Revitalise Itsoseng Entrepreneurial Centre
 - Apprenticeship training

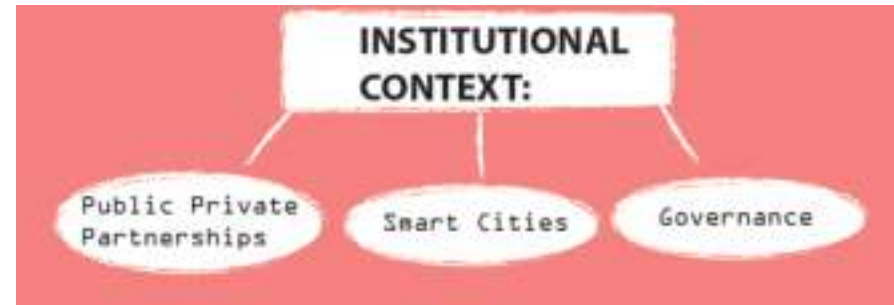
- The following spatial transformations were identified to stimulate economic development:
 - Spatial reforms.
 - Reverse apartheid era spatial planning culture.
 - Regeneration of the inner city.
 - Reverse dichotomous spatial planning system.
 - Popularise the mixed land use system.
 - Link between 4th IR and spatial planning.
 - Decentralised ownership of economic opportunities.

Polokwane 2030 Economic Growth and Development Plan

The plan seeks to provide a holistic way forward with regards to the future development of the city. The strategy is divided into 4 manageable sections referred to as contextual strategies, each contributing to a specific layer of the city. These contextual strategies are then further broken down and defined into implementable and manageable goals and sub-strategies. The different contexts which the contextual strategies will focus on include the physical, economic, institutional, and social development. Integration of these contexts will ensure holistic development and the existence of supporting structures for other recommended strategies.



- **Municipal Outcomes:**
 - Improved provision of basic and environmental services in a sustainable way to our communities.
- **Objectives:**
 - Well, maintained infrastructural services with sufficient capacity to deal with growth.
 - Redevelopment of CBD
 - Rural/ urban integration



- **Municipal Outcomes:**
 - Increased economic growth, job creation and sustainable human settlements.
 - Improved Efficiency and Effectiveness of Municipal Administration.
- **Objectives:**
 - Bridge gap between subsistence and commercial farming
 - Utilization of strategic location for manufacturing and logistics
 - Alternative retail platforms
 - Tolerance and support towards informal sector

- **Municipal Outcomes:**
 - Enhanced financial Viability and Improved Financial Management
 - Improved Efficiency and Effectiveness of Municipal Administration.
 - Increased Economic Growth, Job Creation and Sustainable Human Settlements.
- **Objectives:**
 - Create an environment that is inviting to ppp's.
 - Alignment of all sectors to become a Smart City
 - Creation of an informed society.
 - Reduce corruption and invoke accountability.
 - Create a client centred government.



- **Municipal Outcomes:**
 - Increased economic growth, job creation and sustainable human settlements.
 - Improve community confidence in the system of local governance.
- **Objectives:**
 - Creation of an environment in which there is sufficient stimulation or the youth to develop and prosper.
 - Promotion of women's rights.
 - Educate population with regards to health and wellness.
 - Major improvements in Early Childhood Development
- **Actions identified for the CBD – Year 1-5:**
 - Although an Urban Development Zone has already been established in 2005, a real need exists for site specific interventions; therefore, the CBD Development Plan will need to be revised as it is also outdated and requires input on inner city regeneration.
 - Regeneration plan to indicate locations where informal trade is to take place.
 - Development of Urban Design Framework for the pedestrianisation of Church Street between Thabo Mbeki and Hospital Street and areas where the CBD connects to the Nelson Mandela Corridor.
 - Assign Planning and M&E to establish Business Improvement Districts in areas with greatest need and potential.
 - Identify buildings of significant heritage value.
 - Pre-feasibility studies for the expansion of the CBD boundary north-westwards towards Nelson Mandela Drive and across the railway line to include the area bordered by Nelson Mandela Drive, Fluorspor Street and Blaauwberg Street.
 - Detailed redevelopment plan for the northwestern part between Dahl, Devenish, Buite and Excelsior Streets for higher residential densities to support growing inner-city population, most notably due to the increase in tertiary education centres.
- Feasibility and implementation strategy, including land acquisition strategy, for the conversion of the six blocks to the east of Dahl Street into medium and high-density housing.
 - Feasibility study and development plan to retain and strengthen the existing tourism precinct and information centre to the north of the municipal offices.
 - Identify large, underutilised sites within the CBD and peripheral areas to attract large retail outlets and develop a set of special conditions, preferably within the established UDZ Zone 3 where certain conditions already exist.
- **Actions identified for the CBD – Year 5-10:**
 - Investigate and develop additional/ complementary business incentives in the CBD in line with the UDZ.
 - Extension of CBD boundaries according to recommendations and integrate with Nelson Mandela proposed Rapid Transport System corridor.
 - Redevelop buildings in line with regeneration plans.
 - Assign Planning and M&E to conduct feasibility studies on the various expansion options, including widening of certain streets which facilitates high traffic volumes and areas to be integrated as part of the multi-modal transportation hubs.
 - Implementation of projects to result in redevelopment of areas for higher density residential purposes.
 - Marketing of opportunities to develop large retail outlets in CBD with set of special conditions.
- **Actions identified for the CBD – Year 10-15:**
 - Bi-annual review of BID's; CBD development plans and SDF's.
 - Development assistance to large retail outlets.

Municipal Business Development and Support Programmes

- *Itsoseng Entrepreneurial Centre*: provide incubation program for SMMEs for a period of 3 years. Developmental support services to SMMEs are offered in different sectors of the economy with focus on the manufacturing sector. The centre was designed to

incubate 41 SMMEs who are doing mainly undertaking the following:

- *Art & Crafts* - Includes bead work, paintings, crafted products etc.
 - *Steelwork* Includes welding, aluminium products, steel pipes, others steel products such as readily made shacks, toilets etc.
 - *Woodwork* – Includes furniture, or any other wood products.
 - *Upholstery* – includes furniture, car seats, leather work etc.
 - *Textile* – include bags, shoes.
 - *Clothing* – includes all types of clothes such as traditional, wedding, uniforms, evening wear and casual wear.
- *Business Support Centres:* The municipality has constructed stalls in some clusters to offer support to emerging entrepreneurs. The only centre in the CBD is the Limpopo cooks Centre in which the municipality has allocated 24 units to SMME involved in cooking targeting taxi commuters and many other customers in town. Entrepreneurs undergo developmental training which focuses on aspect of health and safety and other commercial training to improve their business.
 - *Business Compliance and Regulation:* Informal trade economy plays a large and vital role in the overall economy of Polokwane, Limpopo and South Africa as a whole as it forms the very livelihood for thousands of people. The objective of the section is to demarcate special areas for informal trade to take place, to regularize the informal economy and to have more efficient transformation from informal to formal economy.
 - *Street Trade Permits and Management:* Permits are issued for different categories/ sectors within the Municipality, and they are renewed monthly. There are 1021 permits issued across different areas within the Municipality - City cluster, Seshego cluster, Mankweng cluster, Aganang cluster. Permit categories are:
 - Fruits and Vegetables
 - Meat and Porridge
 - Bunny Chow
 - Accessories
 - Shoe repair
- Home utensils
 - Photography
- *Street Trade Developmental Support:* The street traders that have permits are offered developmental support through training and workshops to empower street traders to run successful business and comply with Municipal by-laws and policies.
 - *Street Trade Opportunities:*
 - Communities are given trading opportunities during events hosted in Municipal Infrastructures such as the stadium for events such as soccer matches, festivals, and church gatherings.
 - Trading Stalls constructed by the Municipality:
 - Bok Street Traders Stalls next to the Taxi Rank – accommodates 25 traders.
 - Church Street Traders Stalls next to the Taxi Rank – accommodates 19 traders.

16.3 PROBLEM STATEMENT AND NEEDS ASSESSMENT

Municipal level

The following strengths/opportunities were identified that will assist the economic development of Polokwane:

- High agricultural potential which will greatly contribute to the trade and income of the municipality.
- Mineral reserves also hold potential for economic growth.
- Tourism is a highly underutilised resource that can be developed.
- The education system has also seen a rise in the level of participation meaning an increasing level of educated population that are more employable.
- Increased drive toward service delivery and providing all households with basic services.
- HIV rates in Limpopo have been decreasing since 2005 and are below the national average.
- Provision of basic services has been directed well to the poor.

- Rural Housing delivery figures have been increasing and the national mandate on housing delivery has been a key focus area in the province.

The following threats/constraints were identified that could impede the economic development of Polokwane:

- There is a severe shortage of Service Delivery especially in urban/semi-urban areas.
- The capacity for the maintenance of existing service infrastructure is also a concern.
- Even though spending has greatly increased in the Healthcare sector, capacity issues in the more rural areas remain a major threat.
- The prevalence of HIV and TB in the Province, although declining remains a constraint to the potential for growth and development.
- A great weakness still exists in the procedures guiding Governance and accountability.
- The most pressing concern currently facing the whole Province is the absence of sustained Economic Development and coupled job creation.
- A shortage of suitably skilled workers contributes to the slow rate of economic growth.
- There exists a great divide in income categories and this disparity continually widens the gap between the rich and the poor, exacerbating the already pressing need for social and service infrastructure.
- The overall level of education in Limpopo currently still resides below the national average despite the increasing level of participation in basic education systems.
- Housing Delivery remains a challenge.
- The shortage of land in urban areas available for development of subsidised housing projects.
- A lack of appropriate plans guiding development, such as Spatial Development Frameworks, and their implementation results in a further fragmented structure of development.
- Related to the above, new Housing projects are often located far from economic opportunities that then also mean an increased

expenditure on travel and/or lodging, further impeding the economic development potential.

- Corruption is widespread.
- Bad debt collection / Revenue enhancement.

Major issues identified that could affect the growth and functioning of the CBD:

- Shortage of small retail facilities of less than 100m² which is the future of retail.
- New markets need to be attracted to offices within CBD.
- Foreseen that offices could be converted to other uses as demand is expected to remain low.
- There is a shortage of affordable accommodation in the CBD, including units below R1.5 million as well as rental units for students and youth.
- Provincial government is critical for the future of the CBD and cannot be allowed to decentralise.
- If Polokwane gets Metropolitan status the District Municipality will move out of the Polokwane CBD and create additional vacant office space and reduce employment.
- Crime is rife in certain areas.
- Unlawful street vendors.
- Insufficient parking.
- Dirt and grime.
- Illegal uses and deterioration towards the taxi holding facility.

16.4 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT FRAMEWORK PROPOSALS

Project Identification and Implementation

The major economic projects identified from reports, documents and discussions are summarised below.

Project	Progress	Location
Eskom Regional Offices with the capacity to accommodate 2000 employees	Feasibility study	Krugersburg 995 LS not suitable. Alternative land Remainder of Farm Weltevreden 746 LS
Polokwane International Convention Centre	Seeking funding	Southern Gateway Extension 1, corner of the N1 southbound (Pretoria Road) and Lawton Road
Student-friendly accommodation 5000 units	Delay due to funding mechanism	Ext 106 and 108 next to Sasol Madiba Park
Polokwane Academic Hospital with a patient bed capacity of 688	Civil works started	Remaining Extent of Erf 6861 Pietersburg Ext 30, (19.90 ha)
Private Cardiac Hospital	Civil works started	Close to Snake Park
Relocation of the Provincial Legislature from Lebowakgomo to Polokwane	Unknown	Unknown
Science and Technology Park	Feasibility study	Weltevreden Farm, southern part of interchange at N1-Bypass. 274ha land
Informal market hub	Unknown	CBD
Solar farm at Silicon Valley	Unknown	Silicon Road near smelter
Johannesburg-Musina Speed Train Project.	Unknown	Unknown
Upgrade of Polokwane International Airport Terminal	Unknown	Polokwane airport

Project	Progress	Location
Establish a modern Fresh Produce Market (FPM)	Unknown	Unknown
Municipal offices (Polokwane Towers) including uses such as a hotel, restaurant, Cinema, Theatre	Consultant appointed	Municipal offices
Industrial Park or SEZ including agricultural processing	Feasibility study	North Corridor around the airport, application for the expansion of the boundary to cater for at least 200km2 of land
Post incubation hub at Polokwane	Civil works almost completed	Polokwane Ext 26
Eco-estate around the Bakoni Malapa / Game Reserve	Unknown	Around the Bakoni Malapa / Game Reserve
Bakoni Malapa arts and cultural hub incl film and recording studio, incubation stalls, Provincial State Theatre	Feasibility study completed	R37 Bakoni Malapa
Baobab Gardens Motor City	Partly developed	Polokwane Ext 124
Sasol Depot	Unknown	Polokwane Ext 136
Cargo and logistics hub	Unknown	Polokwane Ext 136
Truck-inn and Cargo hub	Unknown	Polokwane Ext 136
Industrial development in airport precinct	Unknown	Around international airport

Project	Progress	Location
Commercialisation of Municipal Facilities incl Peter Mokaba stadium, the game reserve, Jack Botes Hall, Airport, Library Garden and Showground	Unknown	Various
Student accommodation in CBD	Unknown	NW part of CBD, 6 blocks
International Softball stadium	Under construction	Sports precinct
Botanical garden planned to secure the iconic Clivicolia plant	Unknown	Adjacent ext 124
Greenery neighbourhood shopping centre	Opened 26 October 2023	Corners of Grobler, Oost, and Thabo Mbeki Streets

Source: Kayamandi

Table 12: Project Identification and Implementation

Proposed CBD Market Segment Focus

The major economic focus areas for the revitalisation of the CBD relate to:

- Residential development
- Growth of Educational Cluster
- Government office promotion and expansion
- Small scale retail development
- Creation of new CBD attractors/magnets

Residential development

A major strategy for the revitalisation and growth of the CBD lies in the idea to develop high density residential. The high density residential will also support the existing economy and help to encourage the development of new sectors thereby diversifying the economy and ensuring sustainability.

The focus should be on both the ownership and rental of residential units. The units for ownership should relate to flats and possibly townhouses on the periphery that will less for up to R2 million but mostly lower than R1.5 million. The units should be one or two bedrooms to accommodate either couples or couples with young children.

The rental accommodation is likely to be the largest market and should provide a range of options from bachelor’s up to 3-bedroom family units.

The residential developments relate to:

- Conversion of unutilised office space, mostly central
- Vacant stands/land development, mostly to the northwest
- Redevelopment of degraded and run down old single residential and business premises, mostly to the west.
- Redevelopment of single storey family homes, mostly on the southwest and east periphery

The residential units should address the following needs:

- NSFAS students
- Private students
- Singles/ bachelors
- Couples
- Couples with children
- Hostels for teams linked to the sports precinct, could also double up as low-cost tourist accommodation.
- Tourist low-cost accommodation/ backpackers
- Business/ tourist accommodation for longer periods, eg 3-month contracts

The government subsidies and support need to be fully exploited as well as the opportunities need to be marketed to the private sector. The student accommodation market is presently growing, and private sector are on the

lookout for development opportunities. The Urban Renewal Tax Incentive (URTI) in the Urban Development Zone needs to be marketed and Polokwane Local Municipality should also look at additional incentives such as reduced application/inspection fees and reduced rates and taxes even if only for a specific period.

The URTI incentive supports other initiatives, such as policies to write-off existing bad debt from buildings in the CBD in order to allow for these buildings to be sold, restored and refurbished. The incentive will also support the objectives of the Departments Comprehensive plan for the development of sustainable human settlements by encouraging private investment in affordable rental housing in the CBD. Furthermore, it provides a possible catalyst for public-private partnerships in mixed-used developments that provide social facilities that are integrated into new commercial and residential developments. The incentive translates into considerable financial benefits for investors, especially for refurbishing existing buildings.

Growth of Educational Cluster

An educational cluster is a group of educational institutions of all educational levels within a geographical area, that as a final product form an educational service, competitive and interacting providers of necessary factors of industry, equipment, specialized services, utilities, research, and development centres, which reinforce each other's advantages. See diagram below.

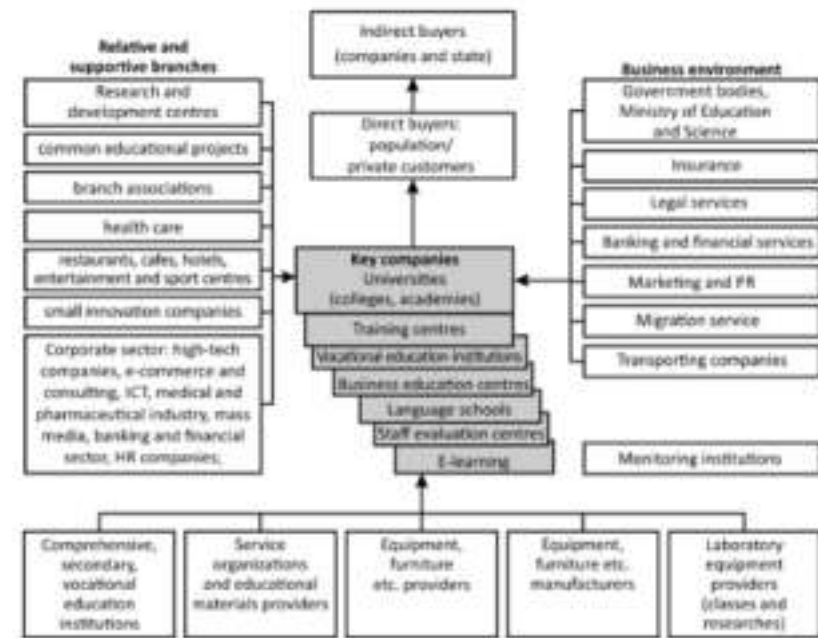


Diagram 152: Typical Education Cluster

The strategy will focus on expanding and diversifying the educational institutions and activities in the CBD as well as developing the value chain.

- The advantages of the education cluster implementation are the following:
- The cluster approach leads to the increased concentration of economic entities in the CBD, contributes to innovation of production, facilitates the achievement of a qualitatively new technology level and production management in all economic activity spheres.
 - The establishment and operation of educational clusters has a direct impact on improving the educational institutions competitiveness and promotes integration between education authorities, financial, research, educational institutions, and industries.

Office promotion and expansion

Although the small-scale offices in the central CBD are finding it difficult to fill vacancies and fully let their premises, several opportunities exist in this sector.

The office sectors that need to be targeted include the following:

- New Polokwane Local Municipality offices need to be developed in the CBD, that is Polokwane Towers
- The existing provincial government offices need to be incentivised to stay in the CBD.
- Other provincial departments not in the CBD need to be encouraged to relocate to the CBD.
- The proposed relocation of the Provincial Legislature from Lebowakgomo needs to be attracted to the CBD
- Head offices of local companies
- Companies wanting to setup regional offices.

Good opportunities for new developments and prestige offices can be found to the south of the CBD up to the sports precinct.

The incentives discussed under residential also apply.

Small scale retail development

Some of the larger retail spaces in the CBD are standing vacant and are not letting easily. Facilities for small scale and independent retailers are however in short supply. It is proposed that the large retail spaces are carefully reorganised to create smaller retail opportunities. The redesign of the spaces will be important to ensure accessibility and visibility for the pedestrians. Arcades and small markets could be a solution. An opportunity exists to create facilities that will encourage the informal sector to upgrade while still being affordable.

The incentives discussed under residential also apply

Creation of new CBD attractors/magnets

There is a need to attract more visitors and tourists to the CBD, including during the week, at nights and at the weekends.

Possible new or upgraded attractors could include the following:

- Upgraded parks.
- Open space upgraded including walking, hiking, and cycling trails.
- Urban agriculture including weekly farmers markets.
- Develop the night-time economy, including entertainment and live music.
- Improve the sidewalk economy through upgrades to make more pedestrian friendly, safe, and interactive.
- Develop music, arts, and culture.
- Improve local communication, including free Wi-Fi.
- Provide and promote regular events, festivals, markets, etc.

Economic Impact

Measurement of impacts

When the quantification of a project's impact on an economy and assessment of its effects along backward and/or forward linkages is required, an economic impact assessment technique is employed. This technique involves the development of a model based on the Social Accounting Matrix (SAM) that allows the quantification of economic impacts on local, regional, or country-wide levels. The main source of information for the development of a SAM is the national accounting system from Stats SA. A SAM is an internationally and nationally accepted economic impact model that determines the impact of an intervention on the macroeconomy, representing the flow of all transactions that take place within an economy (regional or national). Essentially, it is a database in matrix format that represents the circular flow of an economy and provides information on how the relationships between economic agents (i.e. business, government, households and the "Rest of the World") are structured.

A model is developed by gathering information on the circular flow of the economy, made up of six major types of accounts (i.e. activity, capital, factor, commodity, institutional, and "Rest of the World" accounts). Following this step, the data is captured in a database (typically using Excel) to allow

for mathematical analysis. The next step derives matrices and applies matrix algebra as an analytical tool for the large volumes of interrelated data. Lastly, the SAM model is then developed based on the matrices.

The core assumptions of the model, are:

- Production activities in the economy are grouped in homogeneous sectors.
- The mutual interdependence of sectors is expressed in meaningful input functions.
- Each sector's inputs are a function of the specific sector's backward linkage in an economy.
- The total production of the sectors is equal to the sum of the separate sectors of in an economy.
- The technical coefficients remain relatively constant for the period over which forecast projections are made.
- The model quantifies direct and indirect economic impacts for a specific period. Therefore, the estimates that are derived do not refer to gradual impacts over time.
- Known structural changes in the economy have been accounted for in the updating of the SAM.
- One employment opportunity is the equivalent of one person employed full-time for one year.

For this study, the following variables have been included in the analysis, namely:

- Production (new business sales)
- GDP (value added)
- Employment (full time equivalent)

Any of these variables can be used as an indicator of potential change in an economy because of exogenous interventions. The net economic impact (change) is usually viewed as the expansion or contraction of an area's economy in terms of the GGP multiplying effect. The change in the level of economic activity is determined by the nature and extent of expenditure patterns by businesses, the government and households as well as the reaction of the "Rest of the World" (imports and export). An increase in spending increases the demand side in the economy which stimulates business development, economic growth and job creation. The opposite is true for a decrease in business activity.

Three types of economic impacts are generally assessed:

- The **direct effects** occur because of the expenditures of the relevant decision maker, i.e. the economic agent that is responsible for the economic phenomena under assessment. Direct impacts are impacts that are caused directly by the activity and generally occur at the same time and place as the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally obvious and quantifiable. Known or planned facility construction and operating expenditures are a typical example.
- The **indirect effects** occur when the suppliers of goods and services to the new businesses or facilities experience larger markets and potential to expand. Indirect impacts result in an increase in job creation, GDP, and household income.
- The **induced effects** represent further shifts in spending on food, clothing, shelter and other consumer goods and services because of the change in workers and payroll of directly and indirectly affected businesses. This leads to further business growth/decline throughout the local economy.
- The **total effect** is the sum of the direct, indirect, and induced effects for a specific variable.

Economic impacts can also be viewed in terms of their duration, or the stage of the lifecycle of the project that is being analysed. Generally, two phases are subjected to the economic impact assessment, the construction / development phase, and the commercialisation / operational phase. The construction phase economic impacts are of a more temporary nature, and have therefore, a temporary effect. On the other hand, the operational or commercialisation phase of the project usually takes place over a long-term; hence, the impacts during this stage are of a more sustainable nature.

An economic multiplier is an empirical, quantified measurement of the strength of economic linkages between a given industry or economic sector and the rest of the regional economy. A multiplier refers to an economic factor that, when increased or changed, causes increases or changes in many other linked economic variables. Multipliers are calculated using a Technical Coefficients Matrix, Leontief Inverse Matrix as well as the composition of the exogenous intervention. The model determines the value

of primary inputs (e.g. imports and labour), total intermediate inputs, and gross operating surplus inputs which a sector requires from itself and other sectors to supply a unit of output. The multiplier allows for comparisons between sectors, where the greater the multiplier, the greater the economy-wide impact of any given stimulus to one industry or sector of the economy.

Estimated Development Potential

The following Diagram and Table summarises the previous work undertaken in Section 11.3 Land Use Plan and Land Use Budget.



Diagram 153: Promoted Development Areas Identified for Investment

Map ref.	Focus Areas	Sum of Area (m ²)	Sum of Floor Area (m ²)
1	Existing buildings-activity spines	42 978	117 776
1	Existing buildings-activity spines 1 storey	237 234	713 512
2	Existing buildings-civic	40 240	136 725
3	New buildings-civic	15 929	107 086
4	New buildings-gateway	12 456	84 606
5	New buildings-reinvestment	27 510	150 900
6	New buildings-residential	22 326	89 304
7	New buildings-residential redev	27 116	54 232
8	New buildings-retail	3 393	3 393
	Grand Total	429 182	1 457 534

Table 13: Potential Land Use in Focus Areas

To determine the potential impact of future development a most likely scenario was determined based on the previous market analysis and assumptions made with regard to development potential and market mix.

The table below provides an assumption on the amount of floor area that could be developed rather than the maximum potential. Of the potential new floor area that could be developed it is estimated that approximately 30% will be developed or 366 431 m².

Map ref.	Focus Areas	Sum of Potential New Floor Area (m ²)	% Development Likelihood	Estimated Floor Area Developed (m ²)
1	Activity spines 1 storey	713 512	5%	35 676

3	Civic	107 086	80%	85 669
4	Gateway	84 606	80%	67 685
5	Reinvestment	150 900	50%	75 450
6	Residential	89 304	80%	71 443
7	Residential redev	54 232	50%	27 116
8	Retail	3 393	100%	3 393
	Grand Total	1 203 033		366 431

Table 14: Most Likely Potential Floor Area Developed in Focus Areas

The potential number of new dwelling units that could be accommodated in the focus areas is estimated at 3 100 as shown in the table below.

Map ref.	Focus Areas	Estimated Floor Area Developed (m ²)	Residential % of floor area	Estimated number of res. units
1	Activity spines 1 storey	35676	40%	300
3	Civic	85 669	10%	100
4	Gateway	67 685	20%	300
5	Reinvestment	75 450	90%	1 400
6	Residential	71 443	90%	700
7	Residential redev	27 116	90%	300
8	Retail	3 393	0%	
	Grand Total	366 431		3 100

Table 15: Potential New Residential Units in Focus Areas

It is estimated that approximately 91 050 m² of additional office space can be provided, 27 192 m² of retail space and 55 208 m² of additional economic space.

Map ref.	Focus Areas	Offices (m ²)	Retail (m ²)	Other (m ²)
----------	-------------	---------------------------	--------------------------	-------------------------

1	Activity spines 1 storey	0	2 141	19 265
3	Civic	57 826	11 565	7 710
4	Gateway	32 489	5 415	16 244
5	Reinvestment	377	2 264	4 904
6	Residential	357	2 143	4 644
7	Residential redev	0	271	2 440
8	Retail	0	3 393	0
	Grand Total	91 050	27 192	55 208

Table 16: Potential New Non-Residential Development in Focus Areas

Impacts of development

The table below shows the impact modelling results of the estimated development, that are likely to arise during the construction phase.

Impact type	Direct	Indirect	Induced	Total
Production (R'mil)	2 792	4 465	2 788	10 045
GDP (R'mil)	746	1 457	909	3 112
Employment	2 880	7 936	5 186	16 003

Table 17: Construction Phase Economic Impacts, 2023

The table depicts that the construction of the proposed development will generate approximately R10 045 million in additional new business sales or additional production. Approximately R2 792 million of this amount will be created through direct effects and R7 253 million through indirect and induced effects.

The positive impact on production due to the capital expenditure incurred during the construction phase of the development will contribute to a total positive estimated impact on GDP of R3 112 million. Direct and indirect impacts contributed R746 million and R1 457 million respectively, together with an additional R909 million of induced impacts.

The model suggests that 16 003 direct, indirect, and induced jobs will be created during the construction of the additional space in the CBD of which 2 880 will be direct.

After the completion of the construction phase of the estimated new buildings and additions, there will be further economic impacts on the CBD, Polokwane, Limpopo Province and South Africa through the ongoing annual operational functions of the developments. The operation impacts are shown in the table below for the most likely development scenario.

Impact type	Direct	Indirect	Induced	Total
Production (R'mil)	75.4	81.8	85.1	242.3
GDP (R'mil)	38.0	37.4	41.5	116.9
Employment	297	99	132	528

Table 18: Operational Phase Economic Impacts, 2023

During the operational phase of the proposed developments a total of approximately R242 million in production will be generated on an annual basis through direct, indirect, and induced effects. The increase in production will impact on GDP which will be rise by an estimated R117 million in total. The modelling suggests that a total of 528 additional employment opportunities will be created across the regional and national economy during the operational phase, based on the most likely development scenario.

The following table provides an estimate of the number of people who could be employed in the expected developments in the most likely scenario, based on the above assumptions.

Potential employment	Residential	Offices	Retail	Other	Total
Low estimate	400	3 200	400	1 200	5 200
High estimate	900	3 800	900	1 800	7 400

Table 19: Potential Employment in New Developments

It is estimated, based on the above assumptions on the developments, that the CBD could accommodate an additional 5 200 up to 7 400 new employment opportunities.

Market Segment Focus per Precinct

The economic market focus areas per precinct are unpacked below.

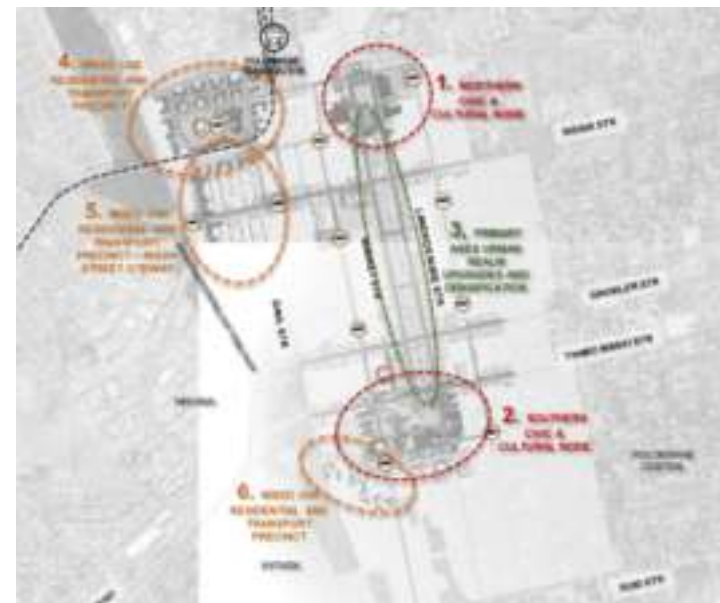


Diagram 154: CBD UDF Precincts

Precinct 1: Northern Civic and Cultural Node

- Property opportunities lie in:
- Entrance to CBD
 - Good accessibility

- Highly visible
- Underutilised land/ properties
- Major Park areas
- Surrounding institutional tenants.

Future development potential includes:

- Strengthen educational cluster.
- Value shopping reinforcement
- Themed/ celebrated park environment
- Iconic gateway building/s and tenants

Strengthen educational cluster.

- Expansion of TUT campus
- Student accommodation
- Diversify offerings e.g. medical campus, business school, hospitality school, teacher training, nursing training, vocational training college.
- Support facilities e.g. relaxation, exercise, retail, food, entertainment, laundry, communication.

Value shopping reinforcement

- Improve connectivity between Game Centre and Lifestyle Centre
- Expand factory shop offerings, theme-based clothing brands, footwear brands, food, linen, kitchenware, etc.
- Expansion of Game Centre to the north/ new centre
- Provision of food outlets including drive through in highly visible locations

Themed/ celebrated park environment

- Upgrade and develop the park environment to create attraction, design, and safety important.
- Ensure daily usage and tourist attraction.
- Possible musical theme:
 - Statues of South African/ Limpopo musical legends.
 - Open air amphitheatre for live performances and films.
 - Childrens musical play area.
 - Regular music festivals.
 - Weekly performances of local artists/ musical talent show.

- Incorporate walking/ running routes with exercise areas.
- Incorporate areas for food kiosks, food trucks and caravans with protected seating.

Iconic gateway building/s and tenants

- CBD entrance provides an opportunity to develop iconic gateway building/s.
- Buildings could straddle roadway.
- Building design is crucial to create iconic status.
- A significant tenant is important, possibly.
 - Limpopo Provincial Legislature.
 - International convention center.
 - Major tourist attraction facilities include museum, art gallery, etc.

Precinct 2: Southern Civic and Cultural node

Property opportunities lie in:

- Strong major tenants – government sector
- Large civic park
- Large open parking areas
- High quality office environment

Future development potential includes:

- Civic Park redevelopment
- New local municipal buildings (mixed use development)
- Strengthen government services sector.

Civic Park redevelopment

- Redevelopment needs to increase visitor numbers.
- Prime attractor for associated day and nighttime economic activities
 - Tourist services
 - Tourist accommodation
 - Restaurants and food plazas
 - Markets
 - Entertainment

➤ Micro retail facilities

New local municipal buildings (mixed use development)

- Polokwane Towers – Major Anchor project
- Integrate with park and surroundings.
- Mixed use development including parking, tourist accommodation, restaurants, entertainment, retail.

Strengthen government services sector.

- Underutilised parking areas ideal for government offices
- Mixed use developments economically more stable
- Sites could also be utilised for Polokwane Towers
- Provincial Government needs to remain and expand in CBD.

Precinct 3: Primary Axes, Urban Realm Upgrades and Densification

Property opportunities lie in:

- Vibrant retail with few vacancies
- High traffic volumes
- Good ground floor visibility
- Strong educational cluster

Future development potential includes:

- Retail redevelopment
- Education cluster development
- Conversions to residential
- Activating the night-time economy
- Support sidewalk economy.

Retail redevelopment

- Vacant large premises need to be converted for small/micro traders.
- Retail mix must be managed.
- Possible focused/ themed redevelopments such as fashion, electronics, food, etc.
- Improve pedestrian interaction.

Education cluster development

- Support future residential growth with all levels of schools.
- Diversify offerings eg medical campus, business school, hospitality school, teacher training, nursing training, vocational training college.
- Support facilities eg relaxation, exercise, retail, food, entertainment, laundry, communication.

Conversions to residential

- Convert poorly performing offices above street level to residential rental accommodation for students, singles, and young couples.
- Target students (NSFAS R45 000 pa for accommodation)
- Look at mixed use developments.

Activating the night-time economy

- Hold regular shows, performances, and events.
- Introduce day and evening markets.
- Introduce entertainment venues including cinemas, theaters, live music.

Support sidewalk economy.

- Create trading areas for hawkers.
- Ensure continued activity at street level.
- Delineate entertainers/ busker's areas.
- Upgrade walking environment including ablutions and seating.

Precinct 4: Mixed Use Residential and Transport Precinct

Property opportunities lie in:

- Large transportation hub
- Well-located vacant land
- Itsoseng Entrepreneurial Centre

Future development potential includes:

- Residential property development
- Diversify transportation hub.
- Expand Itsoseng Entrepreneurial Centre

Residential property development:

- Vacant large sites need to be developed into primarily residential development with mixed use at ground level.
- Range of residential income levels to be catered for
- Mixed use on ground floor to support residential with supplies and services.
- Night-time economy needs to be developed.
- Social services can also be provided.
- Private sector to be encouraged.

Diversify transport hub:

- Diversify transport providers, intermodal, long distance taxis.
- Provide retail and support services.
- Provide kiosks and lockup facilities for less formal sector.
- Ensure lighting and security.
- Strengthen pedestrian link across railway line.
- Integrate with railway station if revived.

Expand Itsoseng Entrepreneurial Centre

- Expand to include retail and service providers training.
- Create market area for retailers including storage areas.
- Diversify entrepreneurial training.
- Provide services for entrepreneurs including meeting rooms, finance, mentoring, training, vehicles.

Precinct 5: Mixed Use Residential and Transport Precinct – Rissik Street Gateway**Property opportunities lie in:**

- Sites ripe for redevelopment.
- Major less formal taxi holding facility.
- Underutilised green areas.

Future development potential includes:

- Residential property development.
- Formal taxi holding facility.
- Urban agriculture development.

Residential property redevelopment

- Existing degraded sites need to be redeveloped into primarily residential development with mixed use at ground level.
- Range of residential income levels to be catered for
- Student housing critical to support education cluster
- Mixed use on ground floor to support residential with supplies and services.
- Social services can also be provided.
- Private sector to be encouraged.

Formal taxi holding facility:

- Formalise taxi holding facility.
- Provide services for taxis including wash bays, valet, servicing, shocks, and tyres.
- Provide kiosks and storage facilities for food related outlets.

Urban agriculture development:

- Provide agricultural allotments for vegetable growing.
- Develop support infrastructure such as boreholes, pumps, piping, storage.
- Provide storage facilities for tools and equipment.
- Develop agricultural support facilities including seeds, seedlings, fertilizers, compost, insecticides.
- Investigate greenhouses.
- Provide market facilities to sell produce.

- Develop support infrastructure such as boreholes, pumps, piping, storage.
- Provide storage facilities for tools and equipment.
- Develop agricultural support facilities including seeds, seedlings, fertilisers, compost, insecticides.
- Investigate greenhouses.
- Provide market facilities to sell produce.
- Link to wider farmers market, food stalls and homemade products.

Precinct 6: Mixed Use Residential and Transport Precinct

Property opportunities lie in:

- Sites ripe for redevelopment.
- Low density environment.
- Underutilised green areas.

Future development potential includes:

- Residential property development.
- Urban agriculture development.

Residential property redevelopment:

- Existing degraded sites need to be redeveloped into primarily residential development with mixed use at ground level.
- Range of residential income levels to be catered for.
- Student housing critical to support education cluster.
- Hostel type accommodation to support sports precinct for visiting teams and tournaments.
- Mixed use on the ground floor to support residential with supplies and services.
- Social services can also be provided.
- Private sector to be encouraged to develop.
- Green space provides opportunities to provide walking, running, and cycling trails as well as outdoor gyms to support residential.

Urban agriculture development:

- Link to Precinct 5 to avoid duplication of facilities.
- Provide agricultural allotments for vegetable growing.

ANNEXURE B: ENGINEERING INPUTS: ROADS, PEDESTRIAN MOVEMENT AND PUBLIC TRANSPORT

17 ROADS, PEDESTRIAN MOVEMENT AND PUBLIC TRANSPORT

17.1 INTRODUCTION

This chapter focuses in more depth on the transport aspects of the Polokwane CBD, including:

- Regional Connectivity
- Transport Infrastructure:
 - Road
 - Rail
 - Airports
 - Public Transport
 - Freight
 - Transport Corridors.
- Transport Modes, Modal Split
- Demand and capacity.
- Road classification
- Acts and Policies

17.2 REGIONAL CONNECTIVITY

The Polokwane CBD has good regional connectivity via the road network, rail network and public transport system. The city is located along the North-South Transport Corridor linking the Zambia Copperbelt, Zimbabwe, Limpopo Province with the economic hub of Gauteng Province. The North-West and North-East key road networks of Limpopo province are well connected to Polokwane City. Polokwane lies roughly halfway between Gauteng Province (300km) and the Zimbabwean border Post (200km) on the N1 highway, making it an ideal hub between these main destinations.

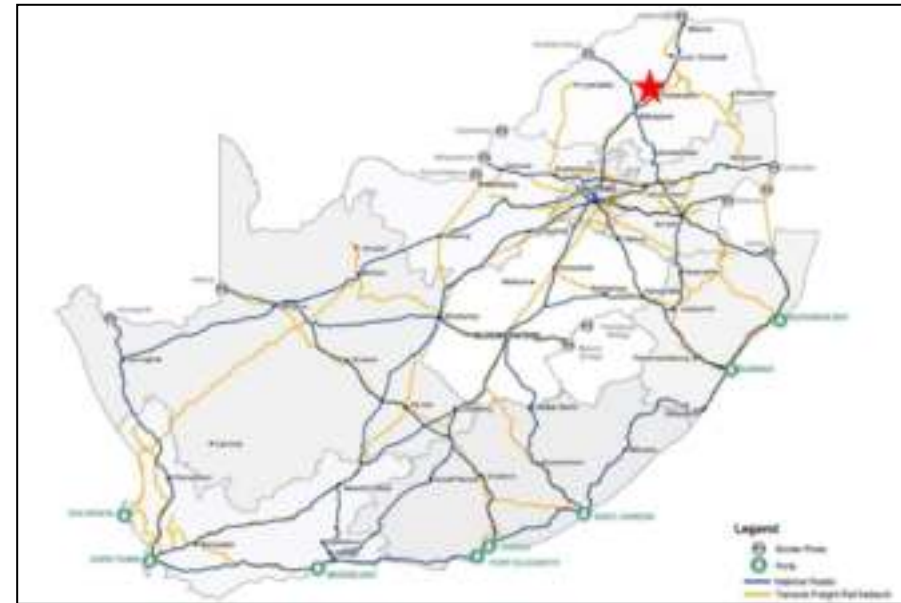


Diagram 155: Regional Connectivity (Road and Rail)

Road Network

Key regional roads connecting the CBD are:

- The N1 and the N1 bypass, connecting Gauteng in the south to Musina in the north and on to Zimbabwe and Zambia. The N1 is part of the SADC regional north-south corridor linking the Zambia Copperbelt, Zimbabwe, South Africa to the ports of Durban and Richards Bay,
- The R81 to the north-east, connecting to Giyani and Malamulele,
- The R71 to the east, connecting to Tzaneen, Phalaborwa, Bushbuckridge, and the Kruger National Park,
- The R37 provincial route to the south connecting via Chuniespoort and Lebowakgomo to various Mpumalanga destinations,

- The R521 to the north, connecting to Alldays,
- Through Seshego, the R567 connects to the N11.

Rail Network

The national rail link between South Africa and Zimbabwe (and Limpopo and Gauteng Provinces) runs through the north-western portion of the CBD. It has very limited functional interaction with the CBD.

Passenger rail:

While rail infrastructure is available within Polokwane City, at present, there is no passenger commuter rail service to Polokwane. In addition, the PRASA Polokwane Railway Station is not open to the public.

There are long term plans for an express passenger rail service from Gauteng to Beitbridge Border via Polokwane. However, the demand does not justify such a service in the foreseeable future.

The Roves Rail luxury passenger train runs between Pretoria and Zimbabwe (Victoria Falls) but does not stop in Polokwane on a weekly basis.

The Passenger Rail Agency (PRASA) operated the Shosholoza Mel, an economy class long distance passenger rail service, between Johannesburg and Musina via Polokwane three (3) times per week in each direction. It is not currently operational. The Railway Safety Regulator (RSR) suspended the Shosholoza Meyl's operating license in February 2020 due to a fatal collision.

There are no intermodal transfer facilities between rail, bus or taxi at the railway station. The distance (by foot), from the railway station to both the Hospital Street Bus Rank and the Pick 'n Pay Taxi Rank is one (1) kilometre.



Diagram 156: Polokwane PRASA Passenger Rail Station

Freight Rail:

Freight rail has significantly decreased within South Africa in general. The Transnet freight rail station is further north about 1.6 km outside the CBD. Typical freight train lengths on the Transnet north-eastern main line are 40 wagons. Freight by rail is mostly fuel, fertilizer, sulphur, and citrus during the season.



Diagram 157: Transnet Freight Rail Station

Air:

Polokwane is served by two airports. A public airport - Polokwane International Airport - just north of the city, and the smaller Pietersburg Civil Aerodrome south-east of the city.

The Polokwane International Airport has scheduled flights to OR Tambo International Airport.

17.3 TRANSPORT OVERVIEW

17.3.1 CBD ROAD NETWORK

The CBD has a grid road network with some of the road pairs servicing as single directional roads to improve mobility. The road infrastructure is a grid network of 100m wide blocks (east west) and 250m long blocks (north south).



Diagram 158: Transport Infrastructure (Road, Rail)



Diagram 159: Street Network (CBD)

North-South Mobility Routes:

- Nelson Mandela Drive connects Seshego and far-north-western suburbs to the CBD, running parallel to the CBD's eastern edge.
- The R101 splits into two parallel one-way routes within the CBD and forms the two main, highstreets of Polokwane central. Market Street (one way north), and Landros Mare Street (one way south):

- The R101 South connects to the city's Southern Gateway and N1,
- The R101 North connects to Polokwane International Airport, and link up to the N1 toward Musina,
- Market Street also splits off into the R521 North, Providing an alternative route to Seshogo via Polokwane Drive, to the north, toward Ga Ramongoana, Ga-Semenya, and further north to Alldays.

- Dorp Street runs along the eastern edge of the CBD connecting industry and the airport in the north and the Southern Sports Precinct, Peter Mokaba Stadium, and further South, across the N1, to Polokwane Game Reserve.
- Church Street is in the centre of Polokwane's CBD and provides access to the Polokwane taxi rank and Limpopo Mall. The road becomes R37 in the south towards Ga-Chuene and Lebowakgomo.

East-West Mobility Routes:

- Rissik Street:
 - Becomes West Street at the Sandriver/Sterkstroom tributary crossing from the CBD into the Western Suburb,
 - West Street becomes Matlala Road connecting to the North-western outskirts,
 - Percy Fyfe Ga-Mashashane Roads splits off West Street serving far western small holdings, farms, and townships.
- Grobler and Thabo Mbeki Streets connect to the R101 on the western edge of the CBD. These streets extend into the eastern suburbs.
- Devenish Street links Nelson Mandela drive with eastern suburbs.
- Marshall and Suid Streets (both one-ways between Totius and Webster Streets) are the most southerly continuous east-west connector.

- Percy Fyfe Ga-Mashashane Roads splits off West Street serving far western small holdings, farms, and townships.
- Grobler and Thabo Mbeki Streets connect to the R101 on the western edge of the CBD. These streets extend into the eastern suburbs.
- Devenish Street links Nelson Mandela drive with eastern suburbs.

17.3.2 ROAD HIERARCHY / CLASSIFICATION

The following table gives an overview of the road classification and hierarchy of the streets and roads around the CBD. The purpose of the classification is to protect the function (eg mobility vs accessibility) of each road.

Function	RCAM Classification	Description	Roads relevant to Polokwane CBD
Mobility	Class 1	National Freeway with route number (N / M / R) High speed (100 - 120km/hr) No access to properties No pedestrians, parking, public parking pick-up and NMT allowed	N1 N1 bypass
	Class 2	Major Arterial with route number (M or R) High speed, typically 80km/hr Intersection spacing typically 800m ± 15% No access to properties	R101 R81 R71 R521 R37

Function	RCAM Classification	Description	Roads relevant to Polokwane CBD
		Public transport stops and pedestrian crossings allowed at intersections only. Pedestrian sidewalks grade separated from road. No traffic calming, no parking Traffic signals to be co-ordinated. Cycle lanes allowed.	
	Class 3	Minor Arterial with route number (M) Intersection spacing typically 600m ± 20%. Limit access to properties. Public transport stops and pedestrian crossings allowed at intersections. No traffic calming, no parking Traffic signals to be co-ordinated. Cycle lanes allowed	Grobler Street, Thabo Mbeki Street Market Street Landdros Mare Street
Accessibility	Class 4	Collector Street (Class 4a Commercial, Class 4b Residential)	Hospital Street West Street

Function	RCAM Classification	Description	Roads relevant to Polokwane CBD
		Intersection spacing should be larger than 150m apart. Access to properties allowed. Public transport stops and pedestrian crossings allowed at intersections. Traffic calming – median for pedestrians Cycle lanes allowed; on-street parking allowed.	Biccard Street Dorp Street
	Class 5	Local Streets Class 5a Commercial Class 5b Residential) The intersection spacing should be greater than 150 meters. Property access is permitted. At intersections, public transportation stops, and pedestrian crossings are permitted. Pedestrian crossings with raised medians are	Local street in residential areas and light industrial areas. Onder Street Boom Street Dahl Street

Function	RCAM Classification	Description	Roads relevant to Polokwane CBD
		allowed as a means of traffic calming. On-street parking and cycle lanes are permitted.	

Table 20: Road Classification

Polokwane Local Municipality (PLM) roads in the PLM Central Area are categorized in Diagram 160: Road Classification.



Source: CIP 2021-2026

Diagram 160: Road Classification

17.3.3 FREIGHT NETWORK

Freight bypasses the CBD along the N1, significantly reducing congestion within the CBD. Other proposed freight routes to bypass the CBD is indicated in Diagram 161: Freight and Dangerous Goods Road Network.



Source: CIP 2021-2026

Diagram 161: Freight and Dangerous Goods Road Network

Even though there are various truck facilities (Shell Ultra City East Truck Inn on the N1 and Shell Ultra City N1 West Truck Inn along the R101, Viva Filling Station along N1) around the town and along the N1, there are still various trucks overnighing within the CBD at night.

17.3.4 PUBLIC TRANSPORT

Public transport servicing the Polokwane CBD includes:

- Leeto la Polokwane Bus Rapid Transport system,
- Minibus Taxis,
- Bus.

Integrated Rapid Public Transport System (IRPTS)

The Leeto la Polokwane Bus Rapid Transport has several bus stops that make it easier for commuters to access educational institutions, healthcare facilities, and employment centres. Stops are placed on the kerbs (pavement) and are easily identifiable by Leeto la Polokwane's logo. In the current schedule, the routes are TE5B from the CBD to Seshego (Zones 2 and 3), TE4 from the CBD to Seshego (Zones 1 and Madiba Park), F4B from the CBD to Nirvana (Westernburg) and F1 from the CBD to Flora Park. Diagram 162: Current IRPTN Network illustrates the current route of Leeto la Polokwane buses. There are dedicated lanes for Leeto la Polokwane buses painted red only between Seshego and the corner of Nelson Mandela Drive and Thembi Hani Drive. During the site visit, construction activities were observed between Nelson Mandela Drive and Thembi Hani Drive and Nelson Mandela Drive and Vermikuliet Street. In the direction of the Polokwane CBD, buses run in a mixed traffic pattern.

At the present time, buses run at intervals of 30 minutes. The Leeto la Polokwane bus schedule is as follows:

- Weekdays begin at 5:00 a.m. and end at 19:00 p.m.
- Saturday begins at 7:00 a.m. and ends at 16:00 p.m.
- Sunday begins at 8:00 a.m. and ends at 14:00 p.m.



Source: Leeto la Polokwane Website

Diagram 162: Current IRPTN Network

Diagram 162: Current IRPTN Network illustrates the proposed trunk, trunk extensions, and feeders proposed by the consultant. It is shown in this plan that Leeto la Polokwane buses will service the key streets within the Polokwane CBD. Grobler, Thabo Mbeki, Church, Rissik, Landdros Mare, and Devenish are among the roads. There is no indication of when this plan will be fully implemented.

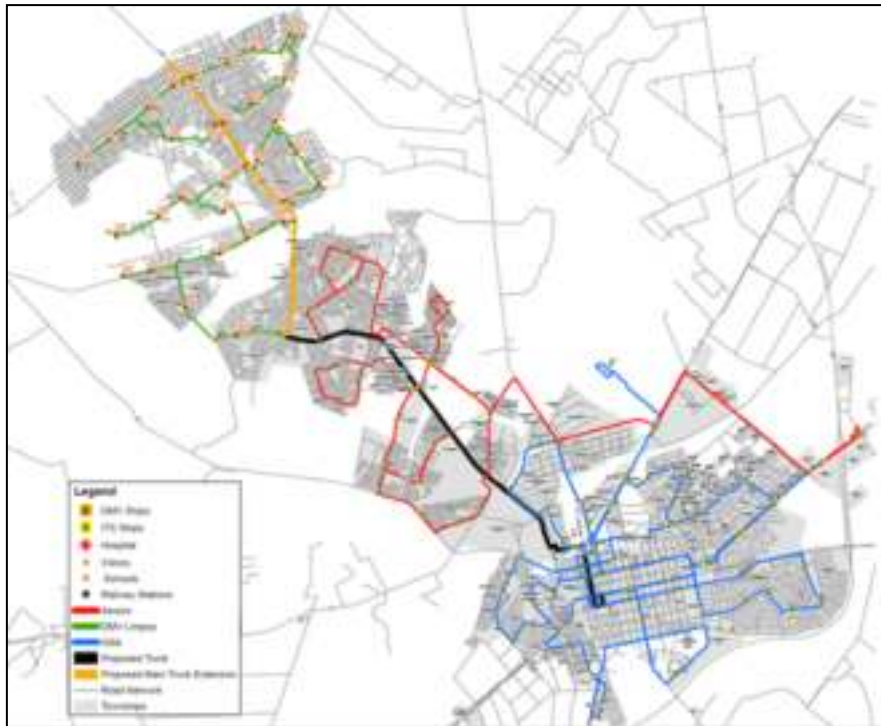


Diagram 163: Planned IRPTN Network

A public transport management system (PTMS) is implemented for the Leeto la Polokwane services. The system is managed from the Control Centre at the Peter Mokaba Stadium.

Minibus Taxi

- The main routes for minibus taxis to the Polokwane CBD are:
- The R521 links the areas of Ga-Ramongoana to Ga-Hlahla to the CBD, passing Polokwane International Airport, Annadale and Ext. 8 & 9 industrial zones. The route enters the CBD at Market Street.

- Nelson Mandela Drive / R567 links Seshego, Perskebult, Mabokelele and beyond, to the CBD via Rissik Street – west.
- West Street – Matlala Road, connects far western townships to the CBD, entering at Rissik Street-west.
- Thabo Mbeki & Grobler Streets connects the CBD to the far eastern townships of Mankweng and Boyne – via the Eastern Gateway – passing Savannah Mall and well-established eastern suburbs.



Source: CITP 2021-2026

Diagram 164: Minibus Taxi Routes

Ranks and Facilities

Most of the taxi ranks and holding spaces are located in the north-west and north-east sectors of the CBD.

Taxi ranks:

- The Indian Centre Taxi Rank,
- North of the railway line is the Polokwane Bus Station and further north lies Polokwane Train Station,

- City Centre Taxi Rank: at the western gateway to the CBD, on Rissik Street. It is located between the Indian Centre Taxi Rank and Polokwane Taxi Rank,
- Polokwane Taxi Rank: adjacent to Limpopo Mall and it is the most central, formal taxi rank in the CBD,
- Informal taxi holding spaces cluster along the western greenbelt open space, between Nelson Mandela Drive and Buite Street,
- The Jack Botes / Civic Park Foyer in the southern section of the city serves as an informal taxi rank and holding space,
- Checkers Taxi Rank (Biccard Str),
- No. 87 Paul Kruger Street Long Distance Taxi Rank (Privately owned).

Long distance taxis:

- No. 87 Paul Kruger Street Long Distance Taxi Rank (Privately owned).

Holding areas:

- Taxi Holding Area (Along Nelson Mandela Drive),
- Informal taxi Holding Area (Devenish / Buite Str),
- Informal taxi Holding Area (Rissik / Buite Str),
- RSA Taxi Holding (RSA Café: Dahl between Grobler and Thabo Mbeki Str).

There are several other taxi ranks located within Polokwane but outside the city centre, including:

- Informal taxi ranks adjacent to Caltex Westgate along R101,
- Westenburg Taxi Rank (Ben Harris Str),
- Mall of the North Taxi Rank(R81).

Diagram 165: Public Transport Facilities in CBD illustrates the public transportation facilities within Polokwane's central business district.



Diagram 165: Public Transport Facilities in CBD

There is one rank (Paul Kruger Street) reserved for long distance taxi routes (interprovincial), while the remaining ranks serve local destinations within the province. Apart from taxis operating from formal or informal taxi ranks, some taxis pick up passengers on the street. Grobler, Thabo Mbeki, Devenish, Rissik, and Market are some of the streets where passengers are picked-up and dropped-off.

Taxi Associations

Commuter Taxi Associations are:

- SANTACO Capricorn Region and affiliated Taxi Associations,
- National Taxi Association Capricorn District and Affiliated Taxi Associations.

There are in total (CITP, 2021):

- Twenty (20) taxi associations,
- 1400 taxi association members,
- 2281 vehicles,
- 1911 operating licences.

Most vehicles transport passengers in the morning from rural areas to Polokwane CBD – where they are held throughout the day. Sufficient allowance to be made for holding of these vehicles, without obstructing vehicles flow.

Long distance taxi associations provide services to Burgersfort, Pretoria, Tembisa, Johannesburg, Rustenburg, Brits, Witbank, and Middelburg.

Bus Services

Commuter bus services are provided by:

- Great North Transport,
- Kopane Bus Services,
- Madodi Bus Services,
- Bahwaduba Bus Services.

Long distance/ cross border bus services are provided by:

- City to City (Polokwane Bus Rank at Thabo Mbeki Street),
- Translux (Polokwane Station),
- Intercap (City Square, Limpopo Mall, Savannah Mall).

Many long-distance operators such as Greyhound, City Liner, SSA Roadlink no longer operate.

Bus Ranks and Facilities

Bus ranks in the CBD include:

- Hospital/Silicon Street Bus Rank – subsidised commuter buses,
- Thabo Mbeki Street Bus Terminus – long distance buses.

Hospital/Silicon Street Bus Rank is located north of the CBD and accessed via a pedestrian bridge-link across the railway line. This isolated the rank and impacts on safety. This bus rank includes all necessary infrastructure for commuter buses such as safe ingress, egress, circulation lanes, loading bays, pedestrian queuing areas, shelters, and ablution facilities.

As is the case for taxis, commuter buses also have trouble to circulate and drop passengers off in the CBD, especially in the morning (AM) peak when passengers need to be dropped off at various locations, close to work opportunities.

The proposed Polokwane Public Transport Ring Route will also address this problem as far as commuter buses are concerned. The ring route should be further investigated to ensure integrated with the Leeto la Polokwane IRPTN system.



Source: Polokwane CITP 2021-2026

Diagram 166: Proposed Public Transport Ring Route

Intermodal Facility

Hospital/Silicon Street Bus Rank is located north of the CBD and accessed via a pedestrian bridge-link across the railway line. The bus rank is located south-west of Polokwane Train Station and northwest of the Indian Centre and taxi rank – forming part of the largest transportation node in Polokwane. The facility is located close to the new IRPTS stations ensuring efficient and quick modal transfers between the proposed IRPTS and commuter buses serving areas such as Mankweng, Boyne, Tzaneen, and Lebowakgomo. The long-distance taxi rank is also located here.

17.3.5 NON-MOTORISED TRANSPORT FACILITIES`

Non-motorised transport facilities include pedestrian sidewalks, universal access, pedestrian crossings, and cycle lanes.

Pedestrian Movement

The CBDs street-grid extends uninterrupted through/into the eastern suburbs, enabling pedestrian accessibility through permeability and choice.

The historic street grid is discontinued to the west, with limited access/crossing points over the Sand/Sterkstroom-river tributary greenbelt. Safe, direct pedestrian access is further hampered by large land parcel industrial zones with an irregular street grid pattern, the watercourse/ tributary, and Dahl Street Cemetery.

North, and North-westerly integration is affected by the-impermeable railway line with limited pedestrian crossing provided. Industrial zones where the street grid is irregular and therefore more challenging to navigate in direct lines of comfort provides further movement challenges to pedestrians.

Pedestrian access to the north, west and south are all challenged by having to cross high-order roads with high traffic speeds.

Polokwane LM developed an NMT Masterplan (2016) as shown in the diagram below. The Comprehensive Integrated Transport Masterplan (2021) further expanded on proposed upgrades of the NMT infrastructures in the CBD as indicated in Diagram 167: Polokwane NMT Masterplan.



Diagram 167: Polokwane NMT Masterplan

Source: CITP 2021-2026



Diagram 168: Existing and Proposed Pedestrian Sidewalks in the CBD

Source: CIP 2021-2026

17.3.6 PRIVATE TRANSPORT

Metered Taxis

The CIP noted that there is only one metered taxi association operating within Polokwane, i.e. Capricorn Metered TA, with 130 cabs (vehicles). Polokwane Metered Taxis no longer operate. Insufficient metered taxi facilities are provided, subsequently metered taxis stop all over town. The fee structure and utilisation for the metered taxis is not formalised. The Limpopo Provincial Registration Entity (LPRE) has not issued any operating licenses for metered taxi in the area.

Metered taxis hold informally at the following facilities:

- Savannah Mall,
- Shoprite (Corner of Joubert Street and Thabo Mbeki Street),
- Checkers-Biccard (Corner of Biccard and Hans van Rensburg),
- Pick 'n Pay (Church Street between Devenish and Rissik),
- Grobler Street (Between Schoeman and Landdros Maree).

E-hailing

Polokwane is served by Bolt. In October 2018, Bolt (formerly Taxify) was introduced in Polokwane. With these services, passengers can request a driver to pick them up wherever they are and transport them to their destination.

17.4 TRAFFIC

Traffic Flows

Typical traffic flows are shown in the figure below. The current road network can accommodate the current demand in traffic volumes. Roads in general are more congested in the afternoon, due to hawkers and taxis holding in the traffic lanes.

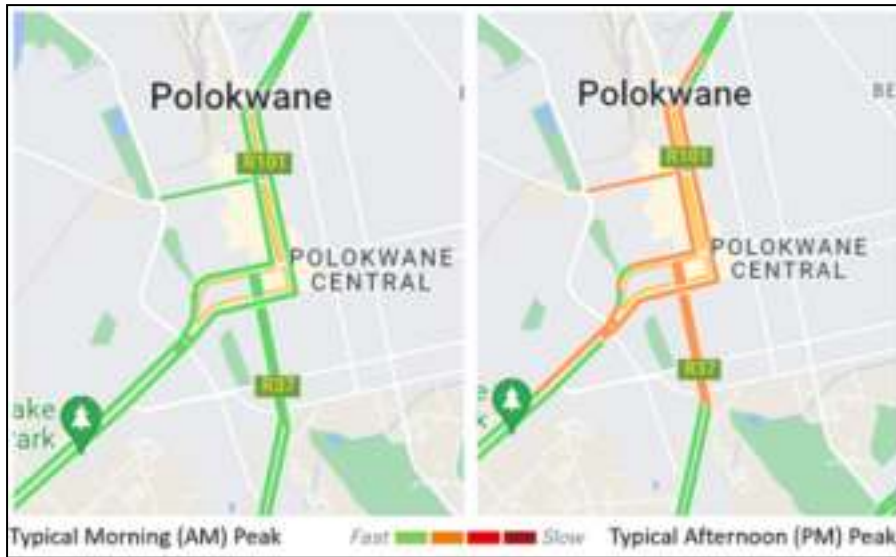


Diagram 169: Traffic Flow

Source: Google Maps

Traffic Signals

Due to the grid road network, most of the intersections within the CBD is signalised as indicated in the diagram below.



Diagram 170: Traffic Signals

Source: CITP 2021-2026

17.5 PARKING

Being a CBD, most available parking is on-street. It is necessary to limit parking along mobility corridors to ensure proper functioning of these streets.

Parking garages and open parking lots are located at:

- Limpopo Mall Polokwane,
- The Indian Centre,
- Game Polokwane,
- Hifi Corp Polokwane,
- Taxi Centre Shopping Mall,
- Checkers Shopping Centre,
- SAPS Polokwane Parking,
- Public Parking Shoprite,
- Corner Kerk Street and Bodenstein Street,
- Polokwane Municipality Government office,
- Adjacent to Polokwane City Square,
- FNB corner Jorissen Street and Hans Van Rensburg Street,
- Eskom Distribution.

Parking ticket machines are only available at Limpopo Mall Polokwane, Checkers Shopping Centre, and Public Parking Shoprite. Parking marshals are present at some on-street parking lots to facilitate payment of parking fees.

17.6 CORRIDORS

Five mixed-use corridors are proposed:

- N1 Southern Gateway Corridor from Meropa Casino towards the CBD: mixed land use including a Convention Centre,
- Nelson Mandela Drive Corridor between the CBD and Seshego: Urban infill with a variety of housing options and limited-service industries,
- North-east of Ext12 (Magna Via) and south of the N1-Eastern Bypass: Service industry, limited commercial and diverse residential development,
- Church Street Extension-South: housing, commercial, tourism related, service industrial land uses related to the smelter, and land uses associated with the mining sector,
- Eastern Corridor along Thabo Mbeki and Grobler Street densification: housing and limited commercial use.



Diagram 171: Development Corridors

The primary, CBD node and secondary nodes need to operate cooperatively as part of the wider urban area, and not in competition with each other. The transport aspects including NMT, public transport to support these linkages.

17.7 ACCIDENT HOTSPOTS AND ILLEGAL TRAFFIC MOVEMENTS

Polokwane experiences approximately 180 car accidents per month, according to reviews online, and certain streets are considered accident hotspots since most of the accidents occur there. Among the streets are Jorissen, Excelsior, Paul Kruger, Devenish, Rissik, Church, Landdros Maré, Thabo Mbeki, Witklip, and Marshall, as well as Nelson Mandela Drive, the Madiba Park traffic light, the corner of Dahl Street and Devenish Street, the corner of Dahl Street and Rissik Street, and the corner of Biccard and Hospital Street, and the N1 South. These accidents were attributed to drivers disobeying the road rules, speeding, novice drivers, and unroadworthy motor vehicles, as well as a general disregard for others on the road.

It is common for minor incidents to occur along Grobler Street between Bok Street and Biccard Street. Minor incidents occur because of vehicles trying to find parking spaces or vehicles parking inappropriately on the street.

In addition to these points, the intersections at Landros Maré and Hospital Street, and Grobler and Market streets, are considered accident hotspots. The incidents occurred at the intersection of Grobler and Market Street because of collisions between vehicles turning left into Market Street and those moving toward the west of Grobler street.

17.8 CURRENT PLANS, POLICIES AND PROJECTS

A literature review of current plans, policies, and projects to transport related aspects include:

The Polokwane Spatial Development Framework (SDF) Potential Gateway Nodes can be established at the five main entrances to Polokwane City.

The Intermodal Transport Hub located north-west of the CBD with long distance bus services in proximity to many taxi ranks in the northern part of the-CBD, as well as improved linkage to the Polokwane International Airport.

The Polokwane CBD Development Plan Overview (2005) noted:

- Demarcate trading areas for the informal sector,
- Privatise and outsource general CBD maintenance,
- Increase visible policing,
- Create a pedestrian mall,
- Create a pedestrian friendly environment.

The Polokwane CBD Plan and Urban Renewal Strategy Overview (2016) identified the following challenges:

- Lack of parking,
- Traffic congestion,

- Bulk infrastructure (sidewalks, streetlights, road pavements) decline,
- Poor public and private space maintenance,
- Lack of pedestrian and vehicular connectivity across the railway line to the north-western part of the CBD – isolating the Itsoseng Entrepreneurial Centre and hampering safe passage between the bustling area around the Indian Centre and to the long-distance bus terminals,
- Public transport (bus and taxi) congestion,
- Public transport facilities mainly concentrated in the northern parts of the CBD,
- Parking shortages in the retail core area,
- Informal traders obstructing pedestrian movement area and business operations in the retail core.

Polokwane Comprehensive Integrated Transport Plan (2021-2026) identified:

- Walking (29.8%) is the most important mode of transport for work related trips in PLM. Walking accounts for 86,8% of school trips in Polokwane,
- Public Transport (bus and taxis) comprise 40.6% of work-related trips,
- Integration of non-motorised transport (NMT) and public transport (PT) planning is essential,
- Addressing new vehicles technologies such as green hydrogen and Hybrid / Electric bus technology.

Public transport problems identified in the CITP (2021-2026) include:

- No amenities at ranks,
- No hawkker facilities,
- Poor maintenance at taxi ranks,
- Taxi ranks not safe,
- Long waiting times at ranks,
- Safeguard and improve the utilisation of resources,
- Expansion of the Transport System,
- Safety.

17.9 PROBLEM STATEMENT AND NEEDS ASSESSMENT

The following CBD-transport related problems and issues are identified:

- Crime and grime,
- Decaying physical structures and poor infrastructure maintenance,
- Lack of access to social /municipal services and facilities,
- Public transport,
- Street traders/hawkers congesting sidewalks,
- Weak urban management and bylaw enforcement,
- Poor quality public environment,
- Safety and security strategy,
- Illegal parking,
- Minibus taxis not complying with bylaws,
- The PRASA station, national railway line and Polokwane Train Station – both are currently inaccessible and passenger rail is non-operational,
- Predominantly, high order/high speed routes cross the river – with limited pedestrian-priority crossings.

17.10 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT FRAMEWORK PROPOSALS

The transport system and road network directly contribute to the following Principles: (1) making connections, (2) a hierarchy of roads, and (3) a network of nodes and corridors of economic opportunity. Furthermore, the public transport and NMT system contributes to Principle 6: a network of public transport and pedestrian movement options.

17.11 PROJECT IDENTIFICATION AND IMPLEMENTATION

The table below gives an overview of issues, projects and plans identified during the literature survey and status quo analysis.

Mode	Item	Discussion
Bus	Thabo Mbeki Str Bus Terminus	Facility has been vandalised and the fence need repair, no lights, no Information sign, and road markings.
Bus	Thabo Mbeki Str Bus Holding Area	Gravel area, no washing bay and no lights and fence.
Bus	Silicon street Bus Stop	Gravel and No lights.
Taxi ranks	Taxi ranks in general.	No amenities at Ranks. Passengers not felling safe at ranks. No hawkers’ facilities at most Ranks for Informal Traders. Polokwane taxi rank knock off Earlier at 19:00. Poor Maintenance of taxi ranks.
Metered taxi		No dedicated holding and loading points for Metered Taxi. Utilise paid metered points for parking. No affordable public car wash. Old fleet. As a stakeholder they are not considered.
Hawkers	Congesting sidewalks and vehicle lanes	Hawker plan and bylaws required

Sources: CITP 2021

Table 21: Transport Related Projects

17.12 CONCLUSION

A comprehensive regional transportation system is available in the Polokwane CBD, including a good road network, a rail system, and a public transportation system. There is a grid road network in the CBD, with some of the roads serving as single-directional roads to facilitate mobility.

Polokwane CBD has good public transportation services, including Leeto la Polokwane Bus Rapid Transport System, Minibus Taxis, and Buses. According to the future plan, Leeto la Polokwane buses will service Grobler, Thabo Mbeki, Church, Rissik, Landdros Mare, and Devenish streets within the Polokwane CBD. Although there is rail infrastructure in Polokwane City, at present there is no passenger commuter rail service.

ANNEXURE B: ENGINEERING INPUTS: SERVICE INFRASTRUCTURE

18 SERVICES INFRASTRUCTURE

18.1 INTRODUCTION

An assessment was undertaken of the following infrastructure and services components: Water, Sanitation, Stormwater and Electricity.

The Polokwane CBD is relatively well serviced with all necessary Civil Infrastructure such as sewerage network, water reticulation network, stormwater network and electrical network. These systems all contribute to Principle 9 - allow for services, sustainability, and energy efficiency, as well as Principle 10 - a Capital Web of public investment.

18.2 WATER

Refer to:

Table 22: Capacities of water storage reservoirs servicing the Polokwane CBD

Diagram 172: Existing water reticulation network and reservoirs in the Polokwane CBD

18.2.1 STATUS QUO - EXTENT, CONDITION AND CAPACITY

The water supply to the Polokwane CBD is from the two reservoirs situated in the Potgieter Avenue reservoir complex located along the intersection of Potgieter Avenue and Rissik Street.

The two existing reservoirs receive its water mainly from the Dap Naude Water Treatment Works, with the additional demand supplemented by the Sand River North Water Treatment Works. The water storage capacities and areas serviced by the two existing reservoirs in the Potgieter Avenue reservoir complex are shown in Table 22: Capacities of water storage reservoirs servicing the Polokwane CBD

RESERVOIRS IN THE POTGIETER AVENUE COMPLEX	STORAGE CAPACITY (ML = 1 MILLION LITRES)	AREAS SERVED
Reservoir 1	13.6	Polokwane CBD, Bendor, Welgelegen, Fauna Park, Flora Park
Reservoir 2	11.4	Polokwane CBD, Bendor, Welgelegen, Fauna Park, Flora Park
Total (ML)	25	

Table 22: Capacities of water storage reservoirs servicing the Polokwane CBD

Existing Infrastructure:

The existing water network is consistent in coverage throughout the CBD, consisting of water pipes ranging from 90mm and 603mm in diameter.

The Polokwane CBD water reticulation network was generally asbestos pipes. The Municipality has however replaced most of the asbestos pipes with uPVC (Unplasticized Polyvinyl Chloride) and HDPE (High-density polyethylene) pipes. The next phase for the replacement of asbestos pipes is prioritised as highlighted in the SDF.

18.2.2 CURRENT PLANS, POLICIES AND PROJECTS

The Polokwane Spatial Development Framework (SDF) states the following in terms of the water network and demand in the Polokwane CBD:

- **Urbanisation Rate:** The percentage of people living in urban areas within the Polokwane Municipal area increased from 57.75% in 1996 to 87.90% in 2006.
- **Economic Growth:** Total value of all products and services produced within the boundaries of the Polokwane Local

Municipality increased from around R4,871,05,000.00 in 1996 to R20,201,488,000.00 in 2008.

- Loss of Portable Water: Water and Sanitation SBU to urgently perform a reconciliation between water purchased from the relevant Water Board and water sold on stands in Polokwane and other urban centres in the Municipality.
- Overuse of water: The mining of Polokwane's water resources is taking place due to insufficient regulations by the Municipality.
- Ground and Surface Water Pollution: Potential pollutants include old asbestos pipes in the Municipal area.
- The Sand River catchments aquifer is under threat from two major pollutants sources namely the Polokwane Cemetery and the Seshego Sewerage Works.

18.2.3 PROBLEM STATEMENT AND NEEDS ASSESSMENT

The Polokwane Municipal area has shown growing potential resulting in increased demands hence the need to upgrade current water supply to meet the current and future demands resulting from current and planned developments. Low water levels are already currently experienced when water pressures are high. The unauthorised overuse of water from mining of water resources, unauthorised developments and noticeable unauthorised car washes in the CBD require attention and strict by-laws.

The Polokwane Municipal area predominantly sources its water from groundwater sources. This therefore requires urgent intervention to protect the catchments aquifers and other water resources from potential pollutants.

The CDB Urban Renewal Strategy (2016) identifies urban decay and illegal accommodation as a deterrent for investment. The north-western portion of the CBD has transformed regardless of rezoning laws and/or health and safety threats associated with illegal water and electricity connections and proper sanitation. Living conditions and levels of overcrowding are of concern.

18.2.4 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT FRAMEWORK PROPOSALS

Future developments must adhere to the procedures set out by the development process and ensure the payment of bulk services contributions for the necessary water reticulation infrastructure provisioning.

18.2.5 PROJECT IDENTIFICATION AND IMPLEMENTATION

To ensure protection of water resources and provision of adequate water supply to meet current and future demands the following projects will need to be implemented:

- Elimination (remove and replace with uPVC or HDPE) of any remaining asbestos pipes within the Polokwane CBD. Asbestos Cement Pipe Replacement Phase 01 is complete and excessive water losses have been kerbed. Council and the Department of Water and Sanitation are currently collaborating on phase 2 planning.
- Protection and mitigations measures to protect the catchment aquifer.
- Artificial groundwater recharge.
- Strict by-laws to limit unauthorised and overuse of water coupled with by-law enforcement.
- The reconciliation process between water purchased from the relevant Water Board and water sold on stands in Polokwane and other urban centres in the Municipality.
- Urgent installation of water meters where necessary.
- Challenges exist with illegal water connections which pose serious health and safety risks. A programme to address this is required.

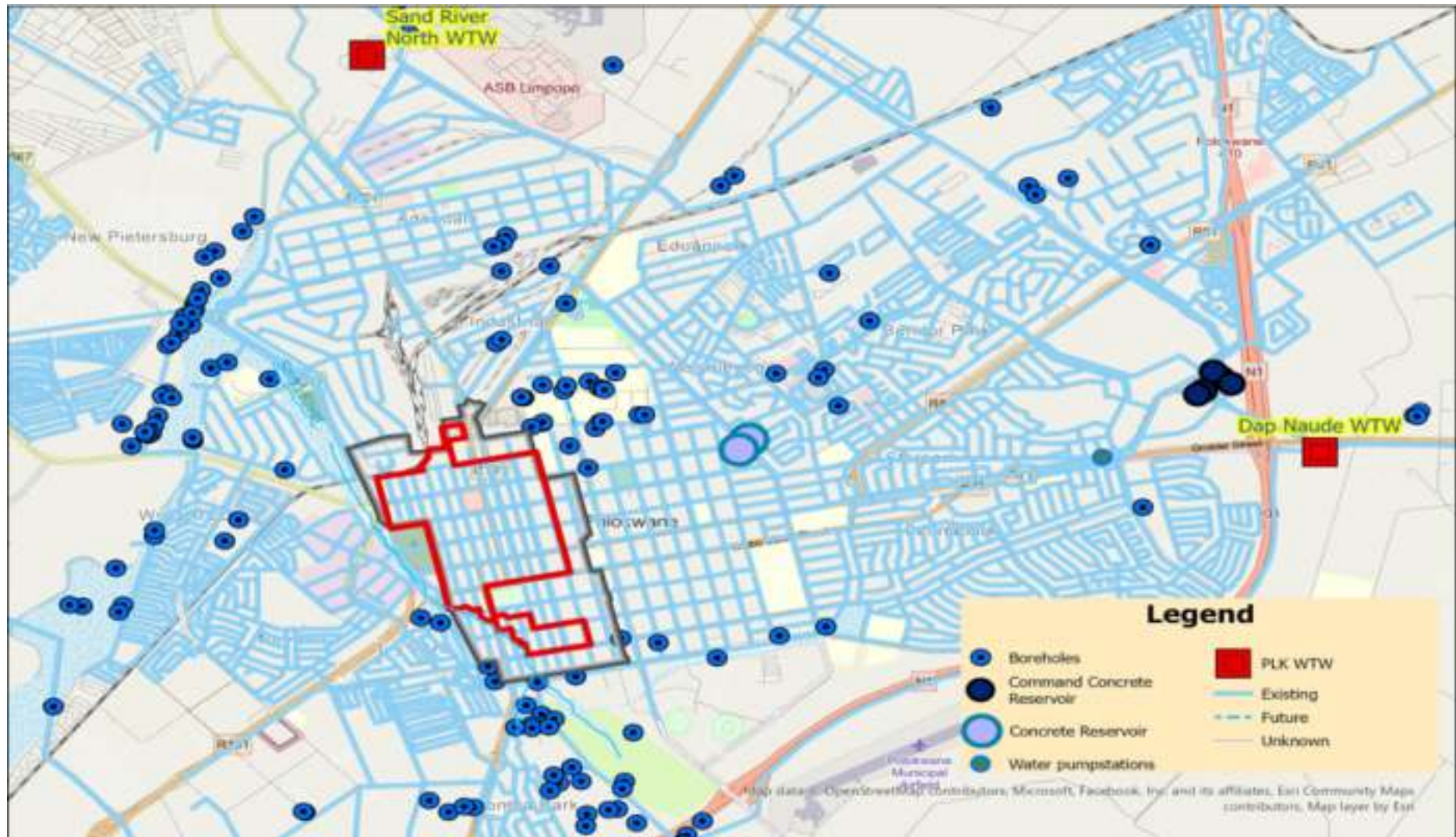


Diagram 172: Existing water reticulation network and reservoirs in the Polokwane CBD

18.3 SANITATION

Refer to Diagram 173: Existing sewer reticulation network in the Polokwane CBD

18.3.1 STATUS QUO - EXTENT, CONDITION AND CAPACITY

The existing sewer reticulation network is consistent in coverage throughout the Polokwane CBD. The existing sewer network consist of uPVC and baked clay pipes.

Wastewater from Polokwane CBD gravitates to the Polokwane Wastewater Treatment Plant (WWTP), which is owned and operated by the City of Polokwane. The existing Polokwane WWTP consists of a Biofilter plant with a design capacity of 6 MLX/day and a Pasveer ditch with a design capacity of 19.4 MI/day, hence a total average domestic and industrial wastewater flow that can be treated at the existing Polokwane WWTP is 25.4 MI/day.

18.3.2 CURRENT PLANS, POLICIES AND PROJECTS

The Polokwane Spatial Development Framework (SDF) refers, in terms of the sewer network in the Polokwane CBD:

- Urbanisation Rate: The percentage of people living in urban areas within the Polokwane Municipal area increased from 57.75% in 1996 to 87.90% in 2006.
- Economic Growth: Total value of all products and services produced within the boundaries of the Polokwane Local Municipality increased from around R4,871,05,000-00 in 1996 to R20, 201,488,000-00 in 2008.

18.3.3 PROBLEM STATEMENT AND NEEDS ASSESSMENT

As highlighted and reflected by the urbanisation rate and economic growth indicators, the Polokwane Municipal area has showed growing potential resulting in increased demands hence the need to upgrade current sewer infrastructure to meet the current and future demands resulting from current

and planned developments. There are serious health and safety risks due to improper sanitation.

The CDB Urban Renewal Strategy (2016) identifies urban decay and illegal accommodation as a deterrent for investment. The north-western portion of the CBD has transformed regardless of rezoning laws and/or health and safety threats associated with illegal water and electricity connections and proper sanitation. Living conditions and levels of overcrowding are of concern.

The total average domestic and industrial wastewater flow that can be treated at the existing Polokwane WWTP is 25.4 MI/day versus the total incoming flow which is approximately 25 MI/day, hence represents about 100% of the available capacity.

Another major problem at the existing Polokwane WWTP is the handling of the sludge produced at the site. The processing and disposal of municipal wastewater sludge has increased in importance since the establishment of secondary treatment standards by DWAF. The disposal of sludge on the existing sites is limited and alternative sludge disposal schemes must be identified.

18.3.4 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT FRAMEWORK PROPOSALS

Future developments must adhere to the procedures set out by the development process and ensure the payment of bulk services contributions for the necessary sanitation infrastructure provisioning.

18.3.5 PROJECT IDENTIFICATION AND IMPLEMENTATION

To ensure adequate provision of wastewater to meet current and future discharges the planned new Regional Wastewater Treatment Plant needs to be prioritised.



Diagram 173: Existing sewer reticulation network in the Polokwane CBD

18.4 STORMWATER

Refer to:

Table 23: Polokwane Average Precipitation

Diagram 174: Catchment Delineation & General Drainage Directions

Diagram 175: Existing stormwater reticulation network in the Polokwane CBD

18.4.1 STATUS QUO - EXTENT, CONDITION AND CAPACITY

The Polokwane CBD which falls under the Sand River Catchment is located about 200km upstream of the Sand River mouth. The Sand River within the Polokwane CBD's vicinity flows along the western edge of the CBD, flowing from the southwest towards the north. The drainage path henceforth follows the natural topography flowing predominantly from east to west into the Sand River. The stormwater network thus follows the natural flow path gravitating towards the Sand River. Refer to *Diagram 174: Catchment Delineation & General Drainage Directions*

Stormwater management in the Polokwane CBD is in a form of concrete stormwater pipe network collecting stormwater run-off from the road network channels through the kerb inlets.

Area

The surface area of the Polokwane UDZ is approximately 145.9 ha. The general drainage pipes hence directions are indicated with each colour representing a specified pipe diameter in *Diagram 55: Existing stormwater pipes in the Polokwane CBD*. The existing stormwater network mostly gravitate from east to west connecting to an existing 1500mm diameter bulk stormwater pipe running along and parallel to the Sand River.

Rainfall

The study area lies in a summer rainfall region, with precipitation in Polokwane amounting to 560 millimetres per year, ranging from 4mm in the

driest months (July, August, and September) to 110mm in the wettest month of November. The average monthly precipitation is shown in *Table 7: Polokwane Average Precipitation*.

Month	Millimetres	Days
January	100	7
February	75	5
March	60	5
April	35	3
May	14	2
June	13	1
July	4	1
August	4	0
September	4	2
October	45	4
November	110	8
December	95	8
Year	560	44

Table 23: Polokwane Average Precipitation

Existing Infrastructure

Refer to *Diagram 55: Existing stormwater pipes in the Polokwane CBD*. The existing stormwater network is consistent in coverage throughout the CBD, consisting of stormwater concrete pipes ranging from 200mm to 1500mm in pipe diameters.

18.4.2 CURRENT PLANS, POLICIES AND PROJECTS

The Polokwane Spatial Development Framework (SDF) refers, in terms of the stormwater network and stormwater management in the Polokwane CBD:

- Urbanisation Rate: The percentage of people living in urban areas within the Polokwane Municipal area increased from 57.75% in 1996 to 87.90% in 2006.

- **Economic Growth:** Total value of all products and services produced within the boundaries of the Polokwane Local Municipality increased from around R4,871,05,000-00 in 1996 to R20, 201,488,000-00 in 2008.
- **Poverty Rate:** The poverty rate in the Polokwane Local Municipality increased from 46.2% in 1996 to 60.5% in 2001, after which it decreased to 37.3% in 2007.
- **Waste Management:** The management of solid waste in the municipal area requires attention, particularly in terms of disposal of domestic, medical, and hazardous waste.
- **Increased silt loads:** Taking place due to soils being carried into rivers and dams.

18.4.3 PROBLEM STATEMENT AND NEEDS ASSESSMENT

Urbanisation in general implies Urban Development which implies increase of water impervious areas as Conventional Development involved the transformation of what was an open area, land that was naturally an open field, into a residential or commercial land/ area.

The urbanisation rate and economic growth indicators from the SDF are clear indicators of the current and potential growth of the Polokwane Municipal.

In growing cities like City of Polokwane, there is a rising demand for living spaces, which leads to a need for developments to deal with densification as more and more people are moving to urban areas.

The Polokwane CBD as a City Centre is fully developed in terms of occupancy and land area utilisation. New development may result in multi-storey developments, upgrading and/ reutilisation or re-development of existing under-utilised land/ buildings.

There are however a lot of new developments happening nearby and adjacent to the CBD. This therefore means any potential impact of these developments in terms of shared bulk infrastructure and potential increased surface run-offs need to be understood, planned for, and catered for.

Proper waste management and infrastructure maintenance are amongst the three major factors in ensuring flood proof cities. Generally, these are said to require attention in the City of Polokwane. In the Polokwane CBD the existing kerb inlets were noticeably filled with waste/ litter, and with silt evident along some kerb channels. Improper waste management and infrastructure maintenance reduce and limits the capacity of stormwater infrastructure, hence pose a threat for the CBD to be prone to flooding.

18.4.4 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT FRAMEWORK PROPOSALS

Future developments must adhere to the procedures set out by the development process and ensure the payment of bulk services contributions for the necessary stormwater infrastructure provisioning.

18.4.5 PROJECT IDENTIFICATION AND IMPLEMENTATION

Programme to clear existing kerb inlets of waste/ litter, and along some kerb channels the increasing silt build up. Improper waste management and infrastructure maintenance reduce and limits the capacity of stormwater infrastructure, hence pose a threat for the CBD to be prone to flooding. The introduction of silt traps to minimise the effluent and pollution into the spruits will be an important intervention.



Diagram 174: Catchment Delineation & General Drainage Directions



Diagram 175: Existing stormwater reticulation network in the Polokwane CBD

18.5 ELECTRICITY

Refer to:

Diagram 176: Thornhill Substation to the south of the CBD

Diagram 177: Voortrekker Park substation to the east of the CBD

18.5.1 STATUS QUO - EXTENT, CONDITION AND CAPACITY

The City of Polokwane CBD has a well-established electrical network and mature area with comprehensive engineering infrastructure and services.

The bulk supply is from Eskom at 66kV. There are two bulk substations on either side of the CBD with dual feeds each to the municipality's substations. There are cables feeding the CBD loads in an integrated manner with bulk power at 11kV. The network is configured in a ring/ dual feed arrangement with the possibility to isolate a single electrical fault and restore power to all/ most consumers while the fault is repaired. The relays at the substations are old technology but functional.

Recently a fourth MV line along Voortrekker Rd was installed and this has augmented capacity in the CBD.

Most of the electrical cable is underground except for areas where Aerial Bundle Conductor (ABC) is installed due to theft of cables. Underground cables are preferred to overhead lines due to theft and vandalism.

The City of Polokwane's Energy Services Department takes responsibility for the network systems before the customer's metering point. This includes the electrical infrastructure such as substations, miniature substations, overhead lines and underground/ overhead electrical reticulation network. The electrical infrastructure is show in the following diagrams.

It is estimated that there is about 15% of spare capacity in the electrical system which would comfortably accommodate smaller developments and upgrades. Any large developments would need to follow the standard development application procedure and pay the bulk services contribution for the necessary infrastructure upgrades.

The Notified Maximum Demand of 180 MVA for the City of Polokwane contracted to Eskom is noted.



Diagram 176: Thornhill Substation to the south of the CBD



Diagram 177: Voortrekker Park substation to the east of the CBD

18.5.2 CURRENT PLANS, POLICIES AND PROJECTS

The electrical infrastructure is old and is in a fair condition and is kept functional by regular and ongoing maintenance. There was a recent cable upgrading project implemented along Voortrekker Road. Currently there are

no major expansion plans and projects for the electrical infrastructure within the CBD area.

18.5.3 PROBLEM STATEMENT AND NEEDS ASSESSMENT

The City's SCADA system used to monitor the electrical network is currently not functional. As part of ensuring and improving efficiency, the system needs to be brought back to functionality. The most updated information is dated back to the year 2010.

The City of Polokwane supports the installation of Renewable Energy systems and currently the library/ museum has a 40kWp solar installation underway on the rooftop and there is a shopping centre in the CBD that is going to install 300kWp roof top solar. The current buy back tariff for renewable energy is 87.29c/kwh.

18.5.4 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT FRAMEWORK PROPOSALS

Renewable energy initiatives are supported, and the City of Polokwane has an approved buy-back tariff for renewable energy of 87.29c/kwh. It is anticipated that more shopping centres and office buildings will implement roof top solar systems in the future.

18.5.5 PROJECT IDENTIFICATION AND IMPLEMENTATION

The Municipality is replacing HID street lighting installations with LED installations as they go along with the implementation of their maintenance plans.

The network is well established, therefore projects are identified and implemented should there be an anomaly in the network i.e., faults, theft of infrastructure etc. or when there is a new customer application where the current network needs to be expanded and/or upgraded.

There is a positive uptake on renewable energy in the CBD that is supported by municipal policies, especially for commercial activities that typically have daytime peak loading. The uptake of renewable energy is further incentivised by the enabling the exporting of excess power (the city is buying power at 89.29c/kWh).

The City's SCADA system used to monitor the electrical network is currently not functional and needs to be reinstated to ensure proper record keeping and accurate billing. This system is also critical for proactive maintenance and to monitor faults.

Challenges exist with illegal electrical connections which pose serious health and safety risks. This also has a detrimental effect on revenue collection for the city. A programme to address this is required.



Diagram 178: Existing electrical network in the Polokwane CBD

18.6 INFRASTRUCTURE CONCLUSIONS AND RECOMMENDATIONS

The Polokwane CBD is relatively well serviced with all necessary Civil Infrastructure such as sewerage network, water reticulation network, stormwater network and electrical network.

The City of Polokwane CBD has well-established infrastructure networks and mature area with comprehensive engineering infrastructure and services.

Although the infrastructure is old it is being maintained and upgraded as and when necessary. Challenges however exist with illegal water and electrical connections which pose serious health and safety risks.

The Polokwane Municipal area has shown growing potential resulting in increased demands hence the need to upgrade current water supply to meet the current and future demand resulting from new developments. Low water levels are already currently experienced when water pressures are high. The unauthorised overuse of water from mining of water resources, unauthorised developments and noticeable unauthorised car washes in the CBD require attention and strict by-laws.

The Polokwane Municipal area predominantly sources its water from groundwater sources. This therefore requires urgent intervention to protect the catchments aquifers and other water resources from potential pollutants.

The total average domestic and industrial wastewater flow that can be treated at the existing Polokwane WWTP is 25.4 Ml/day versus the total incoming flow which is approximately 25 Ml/day, hence represents about 100% of the available capacity. Therefore, to ensure adequate provision of wastewater to meet current and future discharges the planned new Regional Wastewater Treatment Plant needs to be prioritised as a matter of urgency.

There are however a lot of new developments happening nearby and adjacent to the CBD. This therefore means any potential impact of these developments in terms of shared bulk infrastructure and potential increased surface run-offs need to be understood, planned for, and catered for.

Proper waste management and infrastructure maintenance are amongst the three major factors in ensuring flood proof cities. Generally, these are said to require attention in the City of Polokwane. In the Polokwane CBD the existing kerb inlets were noticeably filled with waste/ litter, and with silt evident along some kerb channels. Improper waste management and infrastructure maintenance reduce and limits the capacity of stormwater infrastructure, hence pose a threat for the CBD to be prone to flooding.

The network is well established, therefore projects are identified and implemented should there be an anomaly in the network i.e., faults, theft of infrastructure etc. or when there is a new customer application where the current network needs to be expanded and/or upgraded.

Improved service delivery and regular infrastructure maintenance in the CBD will enhance investor confidence which will result in urban regeneration. Increased business opportunities and investment.

There is a positive uptake on renewable energy in the CBD that is supported by municipal policies, especially for commercial activities that typically have daytime peak loading. The uptake of renewable energy is further incentivised by the enabling the exporting of excess power (the city is buying power at 89.29c/kWh).

It is estimated that there is about 15% of spare capacity in the electrical system which would comfortably accommodate smaller developments and upgrades. Any large developments would need to follow the standard development application procedure and pay the bulk services contribution for the necessary infrastructure upgrades.

ANNEXURE B: ENGINEERING INPUTS: THE NATURAL ENVIRONMENT

19 THE NATURAL ENVIRONMENT

Refer to:

Diagram 179: Civic Park (Jack Botes Park) adjacent to the Polokwane Municipal

Diagram 180: Sterkstroom Spruit and green belt (Steyn Park and Dam)

Diagram 181: Dahl Street Cemetery, entrance to Jukskei Club and Mark Street Park

Diagram 182: The Natural Environment and Open Spaces in the CBD

Diagram 183: Overgrown vegetation and litter noted in the drainage lines and stormwater

19.1 INTRODUCTION

The City of Polokwane lies in the summer rainfall region and has a warm climate. Frost is rare. The highest temperatures occur during December and January. The daily average high temperature is 28.1 °C in January and the highest recorded temperature is 36.8 °C. The average minimum winter temperature is 4.4 °C in July with a record low of -3.5 °C in 1964.

The mean annual daily variation is 15 °C. The mean annual precipitation for the region is 478mm. Most precipitation falls between October and March with the peak period being December-January. Rainfall between the months of May and September is generally low with the average precipitation rate for the period June to August being 4,6mm.

Large-scale surface airflow over the region is dominated throughout the year by easterly and north-easterly winds. October and November are typically windy with wind speeds up to 13.8m/s. The frequency of southerly winds increases during June and July.

19.2 STATUS QUO

The area is roughly divided into two topographical units, namely 'Moderately Undulating Plains' (mainly the eastern half of the municipal area) and 'Strongly Undulating Plains' in the west. The Polokwane Municipal area is

situated on the 'Pietersburg Plateau', which is bordered in the south by the Strydpoort Mountains, in the west and north by the Waterberg Mountains and in the east by the Great Escarpment.

The CBD study area is predominantly built-up with few natural features as depicted in diagrams. The most important natural feature is the Sterkstroom tributary is located to the west of the CBD, which is a tributary of the Sand River. There are two spruits that converge at Thabo Mbeki Street to form the Sterkstroom which is a tributary to the Sand River. The Sand River lies to the west of the City of Polokwane.

The Sand River catchment is drained by the Sand and Blood Rivers. These are indicated as perennial streams but are often dry in the winter. The Blood River has its origin in the west of the Municipal Area and flows eastward between Blood River and Seshego. It is impounded in the Seshego Dam and joins the Sand River to the north of Polokwane. The City of Polokwane has several storm water retention dams and storm water channels that eventually discharge into the Sand River via the Sterkstroom Spruit and open storm water channels.

According to 2018 National Biodiversity Assessment River dataset, the Sand River is classified as Largely Modified indicating that a large loss of natural habitat, biota and basic ecosystem functions have occurred. While there was no specific information available for the Sterkstroom tributary it can be inferred that it would be in a similar condition.

There are several important wetland areas in the catchment. These areas support rare or endangered frog species and plant and red data bird species. With reference to the CBD, a channelled valley-bottom wetland (a wetland occurring in a valley floor topographical setting which is characterised by a channel that drains the wetland and lateral marshy wetland habitat) associated with the Sterkstroom tributary is located outside the study area. This wetland as indicated by the 2011 National Freshwater Ecosystem Priority Area dataset is classified as largely modified.

The utilisation of water in the catchment is mainly underground water abstraction via boreholes. There are a multitude of boreholes pumping into reservoirs and tanks of various sizes in the municipal area. This aquifer is

under threat from two major pollution sources, namely, the Polokwane Cemetery and the Seshego Sewerage Works¹.

There are 6 Vegetation Types that occur in the Polokwane Municipal Area. The largest Veld-Types are as follows: Pietersburg Plateau False Grassveld, Sourish Mixed Bushveld, Sour Bushveld, Mixed Bushveld, North-eastern Mountain Sourveld and a relatively small area of Lowveld Sour Bushveld. The veld is currently badly degraded and overgrazed and requires intervention from the municipality.

North-eastern Mountain Grassveld occurs in the southern parts of MolepoMaja-Chuene cluster and in the eastern part of the Mankweng cluster, along the Strydpoort Mountains, including 280 bird species, 22 butterfly species, 4 frog species, 12 mammal species, 6 reptile species and 5 scarab species².

The Sterkstroom/Sandriver drainage line and green belt connects the western edge of the CBD with the Sandriver, to the northwest. Towards the south, it connects to the Polokwane Sports Precinct and further south to the Polokwane Game Reserve.

Ecological corridors enhance biodiversity while providing critical movement corridors for small animal and birdlife. Celebrated, protected, safe and clean ecological green spaces are a prime urban asset and contributes to raised property value.

It is important to consider Udz land-uses along the greenbelt, as well as edge conditions and treatment that could lead to better functional integration and safe and accessible green realm.

The diagrams further indicate that there are some significant open spaces namely in the CBD, the Civic Park (or Jack Botes Park), Mark Street Park (or SABC Park), Steyn Park and Dam, and the river system, as well as the Dahl Street Cemetery. These parks form important open spaces in the CBD and are used for social and recreation purposes. These parks are generally

well maintained and well used. These areas are important for recreation, arts, culture and heritage activities and features in the CBD.

Unfortunately, in the Civic Park the restaurant building is dilapidated and unused. This provides a good opportunity for a Public Private Partnership to reactivate the space and promote activity in the area. It forms an important civic node made up of the theatre with a programme of events.

The Dahl Street Cemetery is no longer utilised and only used for booked burial spaces in the northern section and the Muslim Qabrastan (burial ground) section to the west. The Silicon Cemetery to the south of the city is used for new burials. The Cemetery is not well maintained with limited landscaping, broken walls, and neglected graves. The Cemetery is also used as a thoroughfare from Dahl Street to Grobler St. This could be better defined and upgraded to improve the aesthetic quality of the area.

The gateways to the CBD from the west are important as they cross the spruit system at Marshall, Thabo Mbeki, Grobler, Devenish and West Streets. These areas should be further upgraded and enhanced to celebrate these entrances to the city.

The most significant gateway is at Thabo Mbeki Street where Steyn Park and Dam are located.

Further south along the spruit in the green belt is the Jukskei club.

To the east of the CBD there are several school sports facilities and recreation areas including the municipal swimming pool complex, and Polokwane tennis club.

The most significant open space complex in the city is the large sports complex to the south-east of the CBD, including the Polokwane Country Club, Golf Course, Cricket, Ring-ball, and Bowling clubs. To the north-east of the sports precinct is the Flora Park Dam with recreational facilities and play equipment.

¹ City of Polokwane, 2021. Draft Integrated Development Plan 2021-2026. City of Polokwane.

² City of Polokwane, 2010. Polokwane Municipal Spatial Development Framework.

The following diagrams show the natural features, parks, and open spaces in the CBD:



Diagram 179: Civic Park (Jack Botes Park) adjacent to the Polokwane Municipal offices.



Diagram 180: Sterkstroom Spruit and green belt (Steyn Park and Dam)



Diagram 181: Dahl Street Cemetery, entrance to Jukskei Club and Mark Street Park

19.3 CURRENT PLANS, POLICIES AND PROJECTS

The following environmental projects have been highlighted as per the IDP, 2021 that have a bearing on the CBD:

- Development of a Climate Change Adaptation Action Plan (CCAAP) for the City of Polokwane.
- New Parks have been developed in the following areas:
- Development of Extension 76, Seshego zone 4, Kgoroshi Tom Naude park.
- The beautification of Tzaneen Road, Sebayeng and Mankweng entrance (island).
- Dry garden concept which involves the development of a garden or landscaping designs where the product will utilize minimal or no water at all. One example is the Mamotintane Park; and
- An implementation plan for a Botanical Garden has been developed but due to potential costs, the city may change this concept to a protected area instead.



Diagram 182: The Natural Environment and Open Spaces in the CBD

19.4 PROBLEM STATEMENT AND NEEDS ASSESSMENT

The following issues were previously noted in the Spatial Development Framework (SDF) and are still relevant currently:

- The management of solid waste in the municipal area requires attention as littering is a problem. During the site visit and as can be noted in Diagram 183 below, there was waste noted in the stormwater infrastructure as well as the Dam,
- There is a lack of recognition of the potential positive role of basic landscaping around industrial and office sites in Polokwane, leading to the industrial area having a very stark and sometimes run-down appearance,
- Raw sewerage from sewerage plants is potentially polluting ground and surface water resources. The Polokwane catchment relies heavily on groundwater resources as most of the surface water resources are allocated, this poses a serious risk to the potable water supply of the city,
- The Sterkstroom tributary and the Seshego Dam are important ecological features that could be refuges to important fauna and floral species, it is imperative that these are properly maintained as there is potential to create an open space environment that can improve the aesthetic feature of the CBD as well as performing important ecological services such as flood attenuation.

Other challenges include the need for maintenance and upgrading along the spruit without compromising its ecological function. The areas are often vast and unwelcoming. In addition, there is encroachment onto the drainage line (by business, residences, and taxi holding areas) with the associated potential risk of flooding and ecological degradation.



Diagram 183: Overgrown vegetation and litter noted in the drainage lines and stormwater infrastructure.

19.5 DEVELOPMENT POTENTIAL AND SUPPORT OF DEVELOPMENT PLAN PROPOSALS

The following proposals are in support of the Development Framework:

- Improved maintenance of the Sterkstroom Tributary, stormwater channels and the Seshego Dam to improve the Open Space functioning and aesthetic character of the CBD,
- Campaign to enhance environmental awareness with a specific focus on littering,
- Improve reporting and spatial data management relating to environmental information,
- Facilitate public-private partnerships to bring about business opportunities in the CBD, a good example being the derelict and unused restaurant facility at the Civic Park,
- Encourage urban agriculture/ small scale agriculture in designated areas in the open space system along the Sterkstroom spruit. These areas are currently under-utilised and due to their proximity to the CBD can serve the market demand and market in the CBD (informal traders, shops etc.).

These proposals contribute to the following Principle 4 – and open space network, 6 – a broad mix of Social and Community Facilities, 8 – a high quality public environment, 9 – Allow for services, sustainability, and energy efficiency.

19.6 PROJECT IDENTIFICATION AND IMPLEMENTATION

The following policies/plans have been highlighted for consideration:

- Development of an Environmental Management Policy,
- Waste Management Policy,
- Open Space Plan including protection of the Sterkstroom Tributary and Seshego Dam.