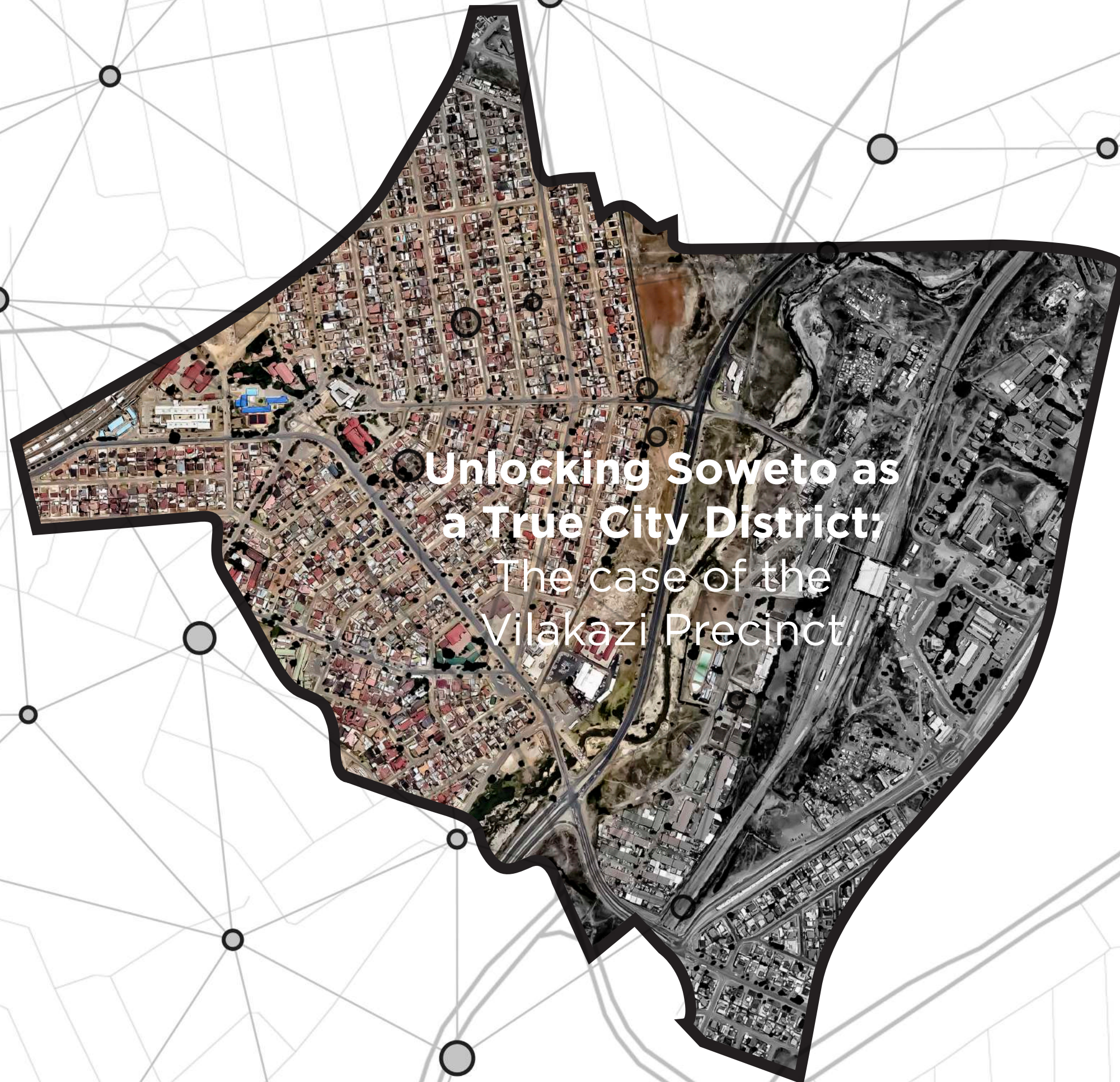




**Unlocking Soweto as
a True City District;**
The case of the
Vilakazi Precinct;

ABSTRACT

Soweto is a segregated township which is a product of the apartheid spatial planning legacy. It boasts a population of approximately 1.3 million people. The residents largely consist of lower economic class with indications of a rapidly growing middle class. Its emphasis over the past two decades has been to improve its connectivity, mixed use activities, social infrastructure, and consolidated public spaces. The high population densities and the low built form densities offer a latent potential for densification strategies around established nodes and the recently developed Transit Orientated Development.

Focusing on the public transport routes would allow for much more accessible mixed-use nodes which majority are located near strong inter-modal facilities. The focus and strengthening of the existing economic activities would increase and diversify job opportunities for residents. This type of economic strategy would celebrate locally owned small scale and informal businesses located along streets as opposed to large businesses such as malls and other large-scale developments.

The Orlando urban hub is home to two Nobel Prize winners Nelson Mandela and Desmond Tutu. Winnie Mandela's House, Orlando stadium and the Hector Pieterse Memorial are located a stone's throw away from the well-known tourist attraction node, Vilakazi Street. These landmarks create a compelling urban node that is accessible from the Johannesburg CBD via the recently upgraded Klipspruit Valley Road and Mooki Street and the Empire Perth corridor.

In the Johannesburg Spatial Development Framework 2040 this node is recognized as a Secondary urban hub. This forms part of the basis as I choose it for my focus area. The potential of this area allows for various opportunities and issues to address, namely: the connectivity of amenities, economic potential, built form density, land productivity, development of social infrastructure and consolidated public spaces.



PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I Batatu Qwabe (Student number: 574809) am a student
registered for the degree of Master of Urban Design in the academic year 2023.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature:  Date: 06-12-2023



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A SUSTAINABLE CITY DISTRICT

According to OpenAI's ChatGPT (OpenAI, n.d.) "A sustainable city district, also known as an eco-district or green district, is a localized area within a city that is designed and developed with a focus on environmental, social, and economic sustainability. It aims to create a harmonious balance between human well-being, resource efficiency, and the preservation of natural ecosystems.

Key features of a sustainable city district may include:

1. **Environmental Sustainability:** Sustainable city districts prioritize environmental protection and resource efficiency. They incorporate renewable energy sources, energy-efficient buildings, green spaces, and sustainable transportation systems to minimize carbon emissions and waste generation.
2. **Mixed-Use Development:** These districts promote a mix of residential, commercial, and recreational spaces, reducing the need for long-distance commuting and promoting a walkable or bike-friendly environment. By integrating various land uses, they foster vibrant communities and reduce the strain on transportation infrastructure.
3. **Green Buildings:** Sustainable city districts incorporate green building practices, such as energy-efficient design, use of sustainable materials, efficient water and waste management systems, and integration of green roofs or walls. These measures aim to reduce energy consumption, improve indoor air quality, and minimize environmental impacts.
4. **Smart Infrastructure:** These districts often incorporate advanced technology and smart infrastructure systems to optimize resource use, enhance energy efficiency, and improve quality of life. Examples include smart grids, sensor networks for monitoring energy and water usage, and intelligent transportation systems.
5. **Community Engagement:** Sustainable city districts prioritize community involvement and engagement. They encourage public participation in decision-making processes, promote social equity, and foster a sense of community ownership and responsibility for sustainable practices.
6. **Sustainable Mobility:** These districts prioritize sustainable transportation options such as pedestrian-friendly streets, dedicated cycling lanes, efficient public transit systems, and infrastructure to support electric vehicles. This reduces reliance on private cars and encourages low-carbon modes of transportation.
7. **Green Spaces and Biodiversity:** Sustainable city districts prioritize the preservation and creation of green spaces, parks, and urban forests. These areas provide recreational spaces, enhance biodiversity, improve air quality, mitigate heat island effects, and promote overall well-being.

The goal of a sustainable city district is to create a model for urban development that minimizes environmental impact, enhances the quality of life for residents, and promotes long-term sustainability. By adopting holistic approaches and integrating sustainable practices, these districts strive to become examples of environmentally conscious urban living."

DEFINITIONS

TERM

DESCRIPTION

“Population Density”	Population density refers to the measurement of the number of people living per unit of area. It is calculated by dividing the total population of an area by its land area or sometimes by the total number of households. Population density is typically expressed as the number of people per square kilometer of land.
“Building Density”	Building density refers to the concentration of buildings within a given area, usually expressed as the number of buildings per unit of land area. It is a measure of how closely spaced or compact the buildings are within a specific region.
“Self-sufficient mixed-use node”	A self-sufficient mixed-use node refers to a development or neighborhood that is designed to meet the needs of its residents and users within its boundaries. It aims to create a balanced and integrated community where people can live, work, and access essential amenities without the need for extensive travel or reliance on external resources.
“Micro locality”	A micro locality, also known as a micro neighborhood or micro community, refers to a small-scale geographic area within a larger neighborhood or urban setting. It typically encompasses a few blocks or a compact area and is characterized by a strong sense of identity, shared resources, and a close-knit community.
“Meso locality”	A meso locality would typically encompass a larger area than a micro locality but smaller than the overall city or region. It could refer to a neighborhood, a district, or a cluster of several micro localities within a specific geographic boundary. The exact size and boundaries of a meso locality can vary depending on the context and the scale of analysis.
“Macro locality”	I interpret “macro locality” as a higher-level geographic unit, it would refer to a larger administrative or geographical area that encompasses multiple meso or micro localities within it. The macro locality represents a broader scale of analysis and organization.
“Heritage consumption”	Heritage consumption refers to the act of engaging with and experiencing cultural heritage sites, artifacts, traditions, and practices for various purposes, including tourism, leisure, education, and personal enrichment. It involves the consumption of heritage resources and the associated experiences, whether tangible or intangible.
“Agrihood”	An agrihood, short for “agricultural neighborhood,” is a type of residential development that integrates agricultural elements and a focus on sustainable food production within a community. It combines traditional neighborhood amenities with working farms, community gardens, and agricultural open spaces. The concept of agrihoods aims to promote sustainable living, community engagement, and a connection to nature and food sources.
“City District”	A city district, also known as an urban district, is a specific area within a city that is distinguished by its unique characteristics, function, or administrative boundaries. City districts are often smaller subdivisions of a larger city and are typically governed by local authorities or district councils. They can have their own distinct identities, cultural features, and urban planning considerations.



INTRODUCTION

We are at the turn of the third decade after democracy was introduced to South Africa. Previous colonial regimes oppressed and segregated native inhabitants, enforcing an unfavorable environment to all who called it home. The introduction of democracy was to reform the ills of the past and restore the dignity of the previously disadvantaged population. The implementation of this notion has proven to be difficult through various fields of life through culture, social stature, and the economic status etc. This paper will focus on the spatial outcomes, challenges, and the potential solutions through the lens of urban design. Orlando West in Soweto is identified as the focus area, a well revered township for its involvement in South Africa's fight towards political freedom. This area has been chosen as a prototype of townships that still endure the spatial inequalities and disparities long after democracy was achieved. This investigation investigates urban design strategies that would empower the residents to lead their lives as an inclusive contributor to the urbanity of the Johannesburg Metropolitan District.

figure 2: Soweto Towers. (Pexels., 2022)

SITE: LOCALITY

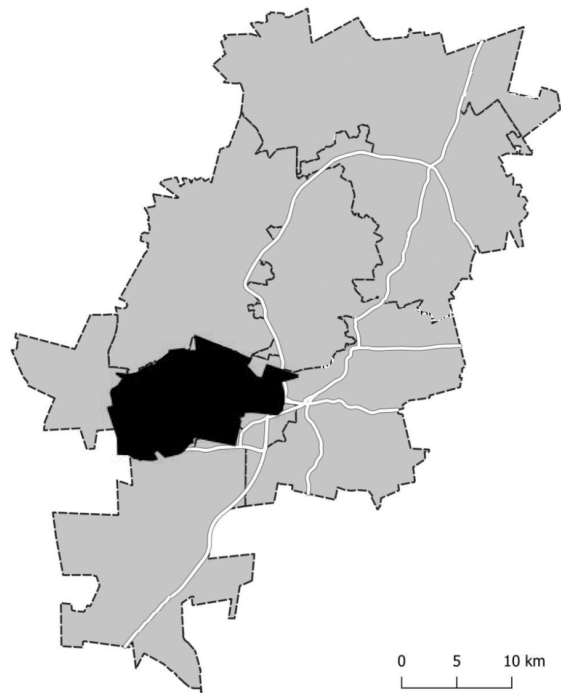


figure 3: Soweto in Johannesburg Municipality. (Author, 2022)

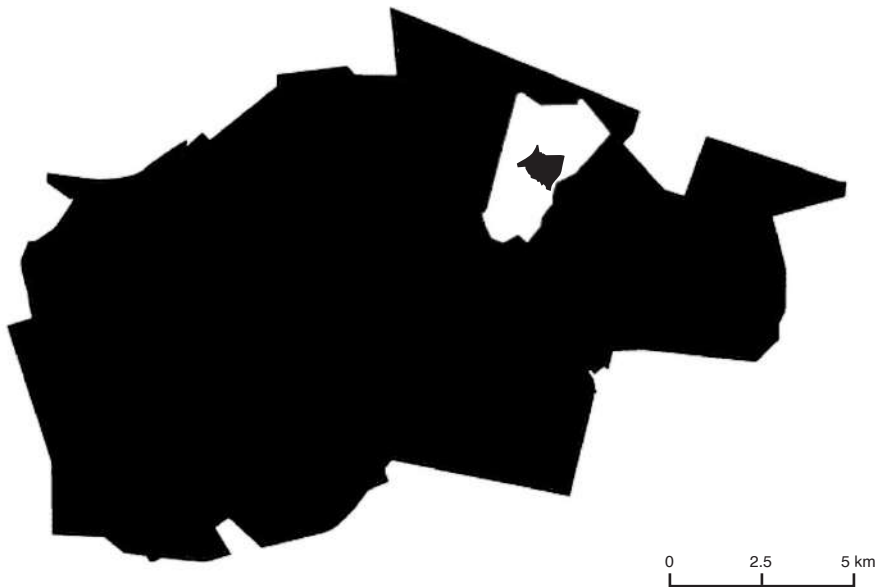


figure 4: Orlando West in Soweto. (Author, 2022)

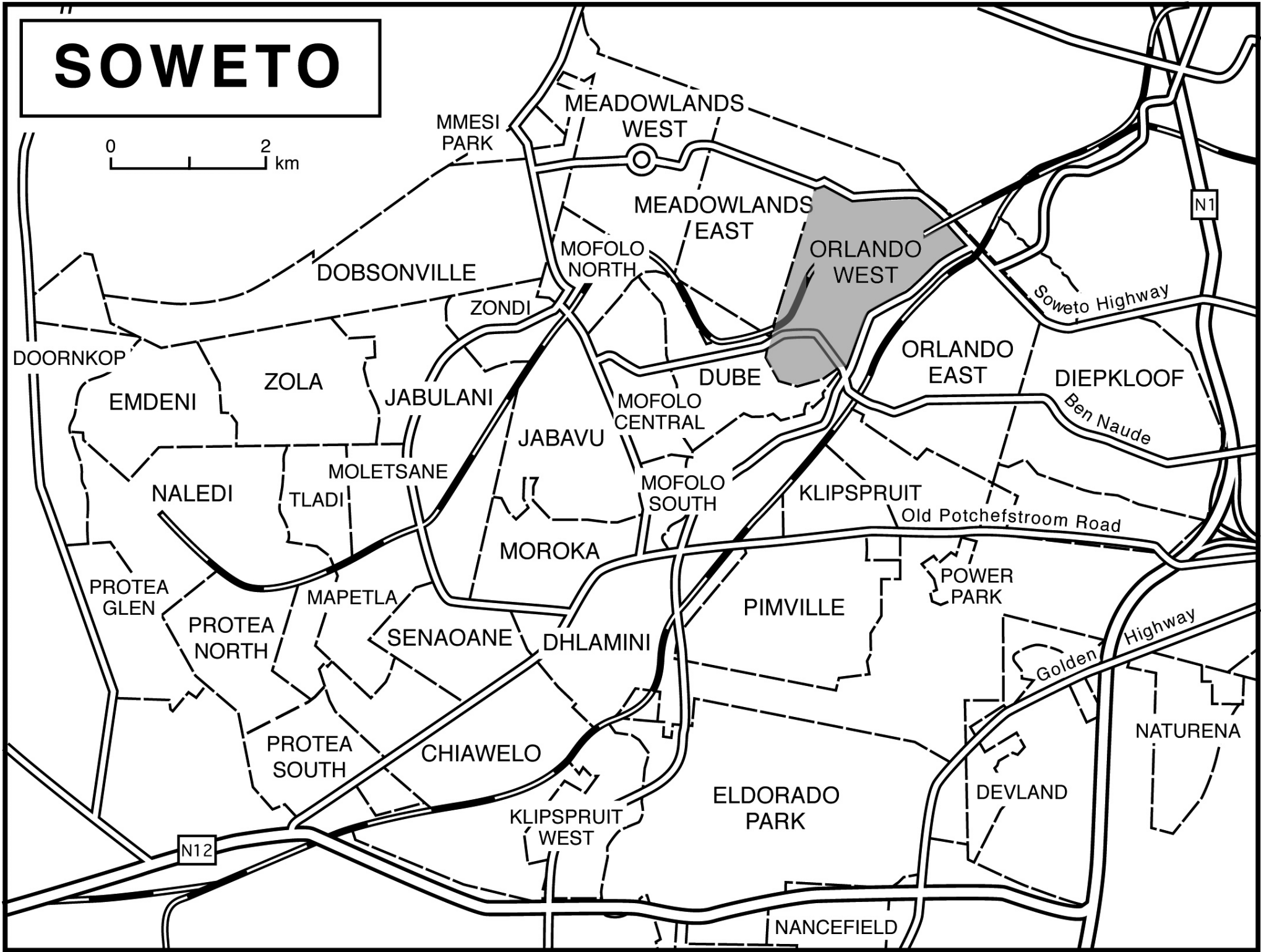


figure 5: Soweto Neighbourhoods, Orlando West focus area. (Nieftagodien and Gaule, 2012.)

SOWETO ORIGINS _TIMELINE



1886-1888: Early Johannesburg

Johannesburg was officially founded in 1886 following the finding of gold and expanded quickly over the following several decades to become South Africa's primary economic hub and most populated metropolis. The mining community established in 1887 to house early mine diggers only had 3 000 residents, but as the gold rush gained steam, the town's population skyrocketed.

1911: Johannesburg

Locally and throughout the world, immigrants flooded in. Johannesburg had 100,000 residents by 1899. And barely 25 years after the city's establishment, in 1911, there were roughly 240 000 people living there. Only New York's growth rate was faster than Johannesburg's.



1900s: New housing in Orlando

Soweto's beginnings may be traced to the turn of the 20th century. The 1904 plague, Orlando's founding in 1930, and Mpanza's squatter movement in the middle of the 1940s were three crucial turning points in the township's pre-apartheid growth. Each of these factors had a unique role in elevating Soweto to the top neighborhood in Johannesburg for the African community.

Klipspruit was designated as a permanent settlement for the city's African population in September 1904, or at least for those who weren't living in compounds or in backrooms on their employers' houses. The people who

figure 6: Soweto History. (Nieftagodien and Gaule, 2012.)



1900s: Separate Development

The Public Health Committee expressed shock at how “the Malays, Indians, and Kaffirs were jumbled all over the place... [with] men and women of diverse colors and ethnicities.” The goal of the committee’s planners, engineers, and medical professionals, according to Phillips, was “a contemporary, organized metropolis, with its inhabitants clearly segregated by race, class, and ethnicity once and for all.” For the advantage of its white people, Johannesburg was to be adequately separated. According to the committee, “the normal development of the European people would be jeopardized by the current state of affairs,” therefore “the existence and future of Johannesburg as a white man’s town in a white man’s nation is involved.”



lived at “African’s Location” were relocated to Klipspruit in 1906. There were 2 500 Africans living there in 1908, according to the revised location.

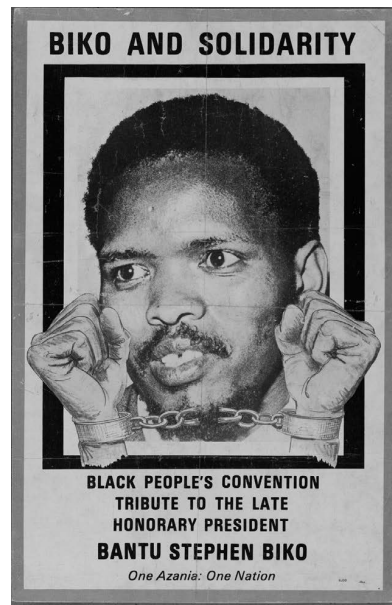
The Native (Urban) Areas Act of 1923 was passed. The Act was a hybrid of laws. On the one hand, it upheld the tenets of the Stallard Commission of 1922, which infamously stated that an African “should only be allowed into the urban areas, which are essentially the white man’s creation, when he is willing to enter and minister to the needs of the white man, and should depart therefrom when he ceases to do so.”



1963: South Western Township

Only in 1963, following the townships’ explosive growth in Johannesburg’s south-western suburbs beginning in the 1950s, was the term Soweto officially adopted. Africans who did not work in the mining industry were formerly to be found in the inner-city slums and municipal areas, along with many other impoverished residents of this fast growing “city of gold.”

SOWETO ORIGINS _TIMELINE_continued



1960s: Inspired by Black Consciousness

The liberation movements suffered crippling blows as a result of state repression in the 1960s. The 1960s may be characterized as a time of political calm in contrast to the campaigns of the 1950s and the protracted political confrontations that followed the rebellion of June 16th uprising. Although apartheid seemed to have total control in the late 1960s and early 1970s, there were early indications of a new atmosphere of defiance, with the young of the townships taking the lead.

‘The basic tenet of Black Consciousness is that the Blackman must reject all value systems that seek to make him a foreigner in the country of his birth and reduce his basic dignity,’ and ‘The Blackman must build up his own value system, see himself as self-defined and not as defined by others.’



1950s: “Imbokodo” The Rock

The pass law affected all non-whites. It can be argued that it affected women more as their common place of work was in the kitchens in white affluent neighborhoods. On the 9th of August 1956 women from various townships gathered in Orlando West and marched to Pretoria against passes.



1970s: Bantu Education

The paradigm of “Bantu Education” was aimed at producing laborers to serve the elite white. It followed that all non-whites should employ Afrikaans as the main medium of learning at all schools.



figure 6: Soweto History continued. (Nieftagodien and Gaule, 2012.)

1976s: Soweto Uprising

On the 16th of June in 1976, students from various schools in and around Orlando West gathered at Orlando West High School. They were to march to Orlando stadium. Unfortunately, they clashed against the police on at the corner of Kumalo Main road and the Klipspruit Valley road. Many lives were lost on this day including the well known Hector Pieterse. (See *Khumalo Main & Vilakazi Street intersection on page 21*)



1980s: Commercial Additions

Political unrest did not settle in South Africa, however, many residents of Orlando realised entrepreneurial opportunities on and around their properties. Owners added backyard dwellings for rentals and frontyard buildings for commerce such as public telephone booths, hair salons, tuck shops etc.

1990s to date: The rise of the “middle-class”.

Nelson Mandela's release from Robben Island on 11 February 1990 gave the nation hope of a better South Africa. The educational system was improved which allowed more non-white nationals better economic opportunities. This notion has introduced a rapidly growing middle-class which is concerned about improving their lives and living conditions although the separate development legacy still plagues their townships.



BACKGROUND

We are at the turn of the third decade after democracy was introduced to South Africa. Previous colonial regimes oppressed and segregated native inhabitants, enforcing an unfavorable environment to all who called it home. The introduction of democracy was to reform the ills of the past and restore the dignity of the previously disadvantaged population. The implementation of this notion has proven to be difficult through various fields of life through culture, social stature, and the economic status etc. This paper will focus on the spatial outcomes, challenges, and the potential solutions through the lens of urban design. Orlando West in Soweto is identified as the focus area, a well revered township for its involvement in South Africa's fight towards political freedom. This area has been chosen as a prototype of townships that still endure the spatial inequalities and disparities long after democracy was achieved. This investigation investigates urban design strategies that would empower the residents to lead their lives as an inclusive contributor to the urbanity of the Johannesburg Metropolitan District.

RESEARCH OBJECTIVES

Historically, African natives had a limited number of boundaries, titled ownership, industrialization and most importantly urbanization. This allowed for many tribes to practise the notion of “ubuntu”, which acknowledges the nature of inter-dependency that exists between all humans. After several centuries this order was to be challenged by western ideologies with introduction of colonialism and later apartheid. The spatial planning of Apartheid created townships for a segregated non-white labour class which were located far from city centres. This exacerbated the commuting time and traveling cost for the labourers. To address the apartheid spatial legacy, several spatial development frameworks identify townships and surrounding areas as spaces for spatial reform through spatial planning and land use legislation. This has been proven to be difficult as the affluent continue to dissociate themselves from these areas therefore the spatial disparities remain.

PROBLEM STATEMENTS

Soweto is one of the largest townships that was conceived through the apartheid spatial legacy. It boasts a population of approximately 1.3 million people (et al., 2016) alongside several keystone political sites, events and leaders which played a large role in the development of Democracy in South Africa. The residents largely consist of lower economic class with indications of a rapidly growing middle class (et al., 2016). Its emphasis over the past two decades has been to improve its connectivity, mixed use activities, social infrastructure, and consolidated public spaces. The high population densities and the low built form densities offer a latent potential for densification strategies around established nodes and the Transit Orientated Developments which began approximately a decade ago . Historically, the primary infrastructure was for vehicular access and RDP residences which had limited social infrastructure, commercial upliftment, and primary services. Several museums, streets, homes, and heritage sites have become tourist attractions which are often disconnected and developed as landmarks within their communities. It is not till recently that it has been realised to be a formal, commercially accessible community. Additionally, developers and investors often identify key sites for malls which adversely affect the local economies, culture, and social development.

RESEARCH QUESTIONS

Research Question:

How can we transform the Orlando West, Vilakazi Street urban node and its adjacent nodes into a sustainable city district, with access to jobs and the full array of urban amenities?

5.2 Sub Question:

How can we create a series of self-sufficient mixed-use nodes as growth points for jobs within the area?

How can we develop mixed land uses and social services through making use of a good street patterns and public transport?

How could a spatial planning ‘toolkit’ on how to commercially develop previously disadvantaged communities assist in addressing the pertinent township realities?

STRATEGIC INTENTION: PRECINCT PLAN

A Precinct Plan provides specific local regions, nodes, or corridors with detailed design and development guidelines. This should go beyond just providing land use advice and particularly address the goals for the entire urban mold and public spaces. A thorough action or execution strategy for projects included in the research is included in what is sometimes referred to as an Urban Design Framework. This research paper aims to propose a precinct plan for the Vilakazi Street Precinct as this may provide more definitive solutions on how to address the ongoing challenges and the how to harness existing latent potential.



figure 7: The Precinct Plan in the context of a package of plans. (Johannesburg Development Agency, n.d.)



MAPPING

figure 8: Hector Pieterse Statue. (Pexels, 2022)

MACRO LOCALITY _ROODEPOORT CONNECTIVITY

Orlando West is well connected to the Johannesburg CBD through several transportation routes and modes which include the Empire Perth Corridor (c). North of Soweto lies Roodepoort a middle to upper class urban area which used to have a well developed central business district, it is currently experiencing degradation as people are moving closer to developing areas. There are limited access routes (a & b) to link the two developing areas. Strengthening the routes to the north would improve and allow access for more communities such as Northcliff, Randpark Ridge and Northriding.



figure 9: Soweto and Roodepoort in metropolitan context. (Author, 2022)



figure 10: Connecting Soweto to Roodepoort. (Author, 2022)

MOVEMENT/CONNECTIVITY FRAMEWORK _EMPIRE PERTH CORRIDOR

The “Corridors of Freedom” are one of the ways the City plans to change long-standing settlement patterns of apartheid that have kept many marginalized groups outside the city limits and away from access to employment, growth, and economic opportunities. (Johannesburg Development Agency, n.d.)

The Empire Perth Development Corridor is a strategic area framework that was developed to connect several neighbourhoods west to the Johannesburg CBD, from Braamfontein, through Auckland Park and Westbury and it culminates with Pennyville and Noordgesig in Orlando West, Soweto. I am of the understanding that this is due to the recently constructed Orlando Stadium which was used during the 2010 FIFA World Cup.

The strategy of the framework is to re-stitch several prominent neighbourhoods through an affordable transit orientated development (TOD) which offers accessible public transport, improves the spatial economy, connects the social clusters and densifies the population and buildings along the corridor, The approach is to use an incremental approach which will allow for a sustainable development for all the identified communities.

While this approach may offer numerous benefits they come with some disadvantages. Firstly, through gentrification, when property values rise and low-income residents may be displaced, which can result from the regeneration and growing appeal of regions near transit hubs. Secondly, to make the most of the limited real estate by housing as many people as possible, TODs usually focus on high-density buildings, such as apartments or condominiums, which may result in a lack of variation in housing. Lastly, property values and rentals are frequently higher in TODs, especially those that are found in upscale metropolitan neighborhoods with convenient access to public transit. Because of the potential increase in cost of living, it may be difficult for families and people with lower incomes to purchase homes in these places. Effectively, the spatial stitch through TODs may result in a socio-economic rupture.

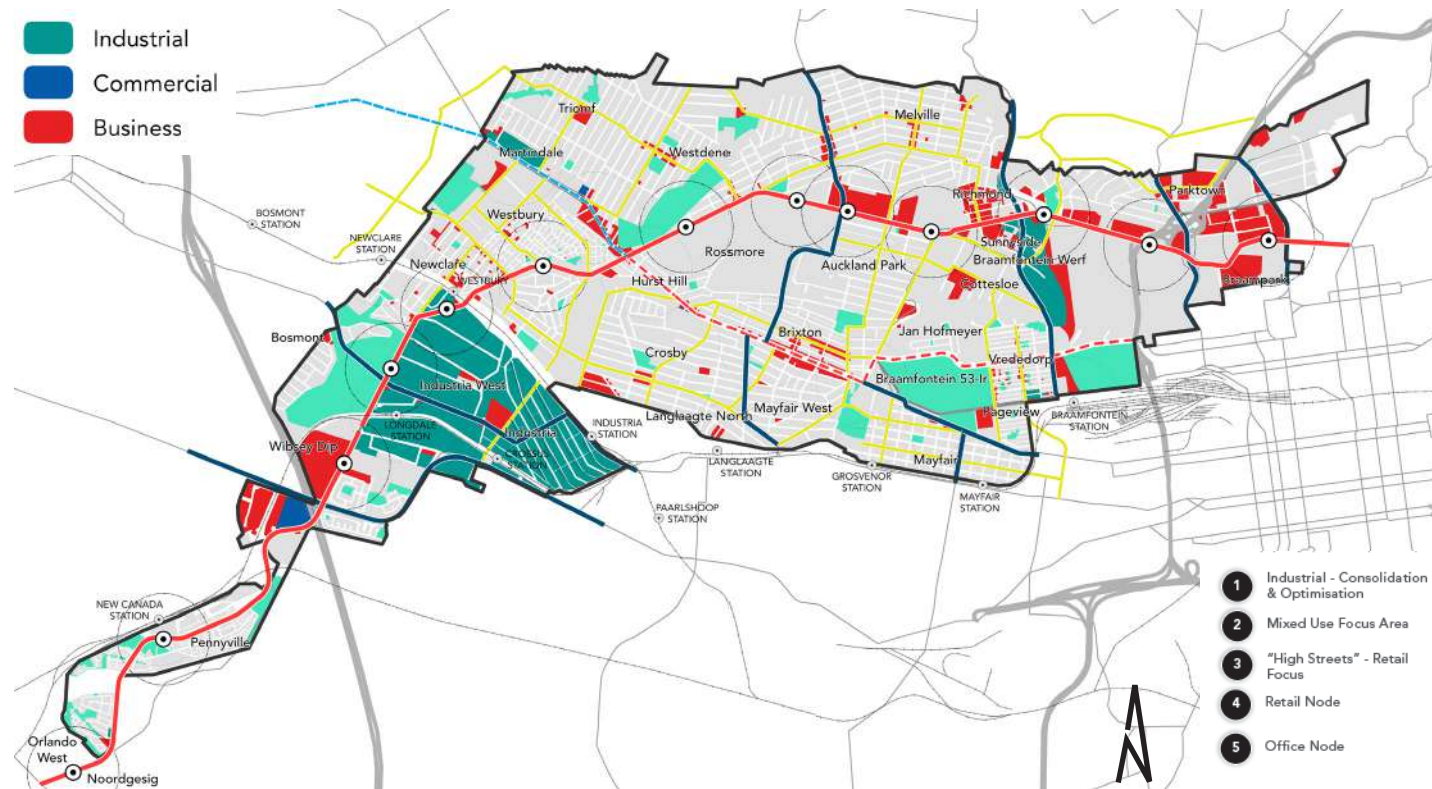


figure 9: Key economic areas (Johannesburg Development Agency, n.d.)

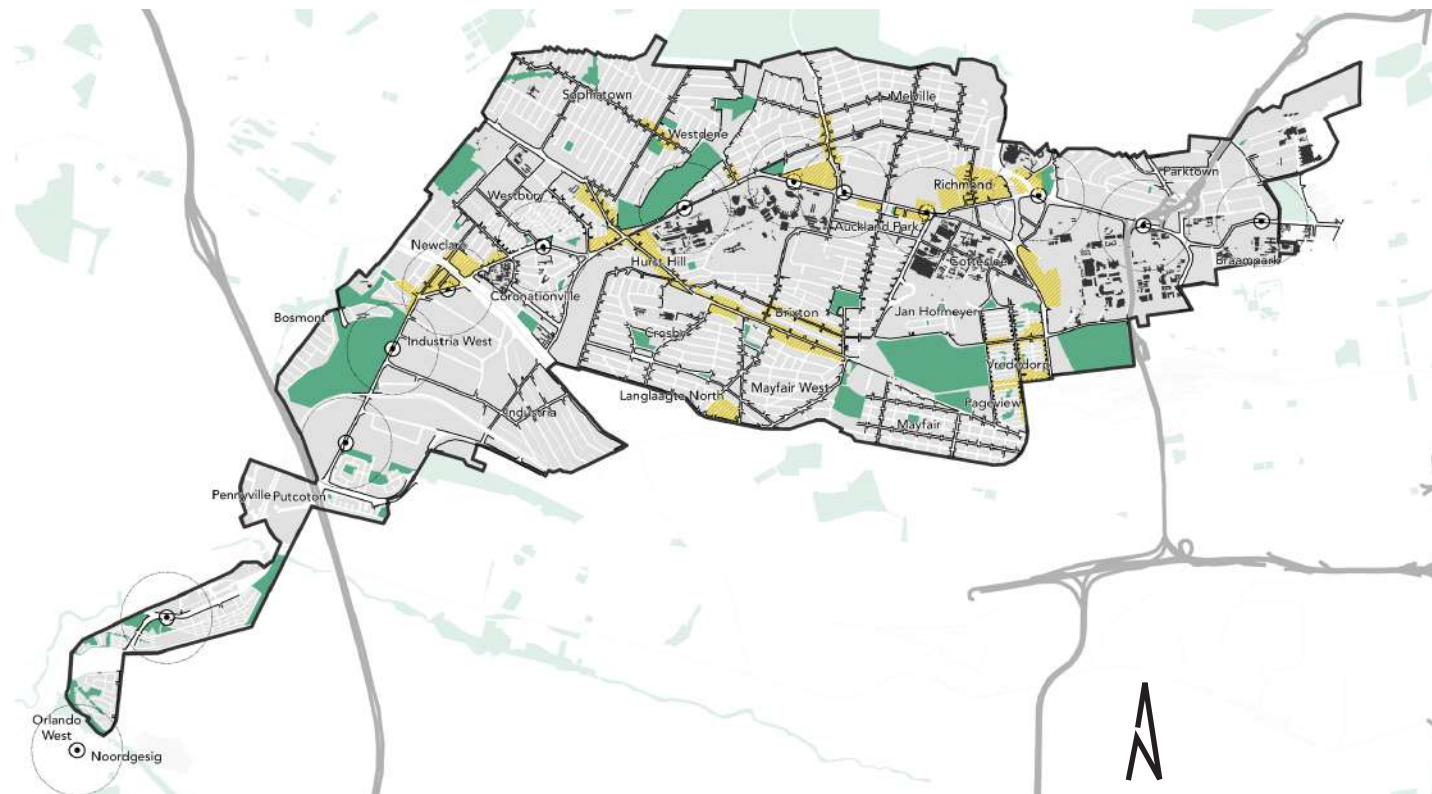
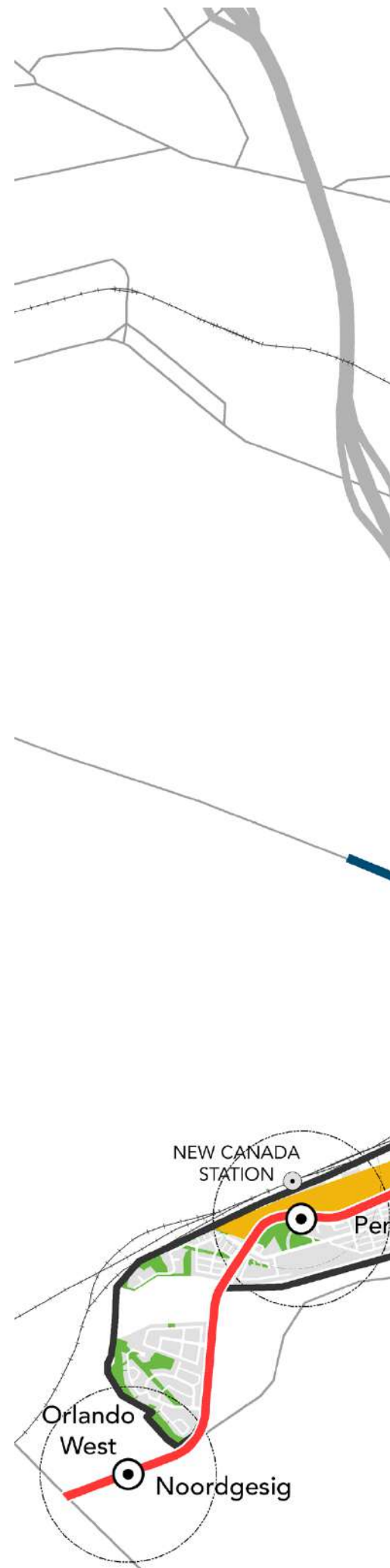


figure 11: Key edges and mixed-use areas with edges. (Johannesburg Development Agency, n.d.)



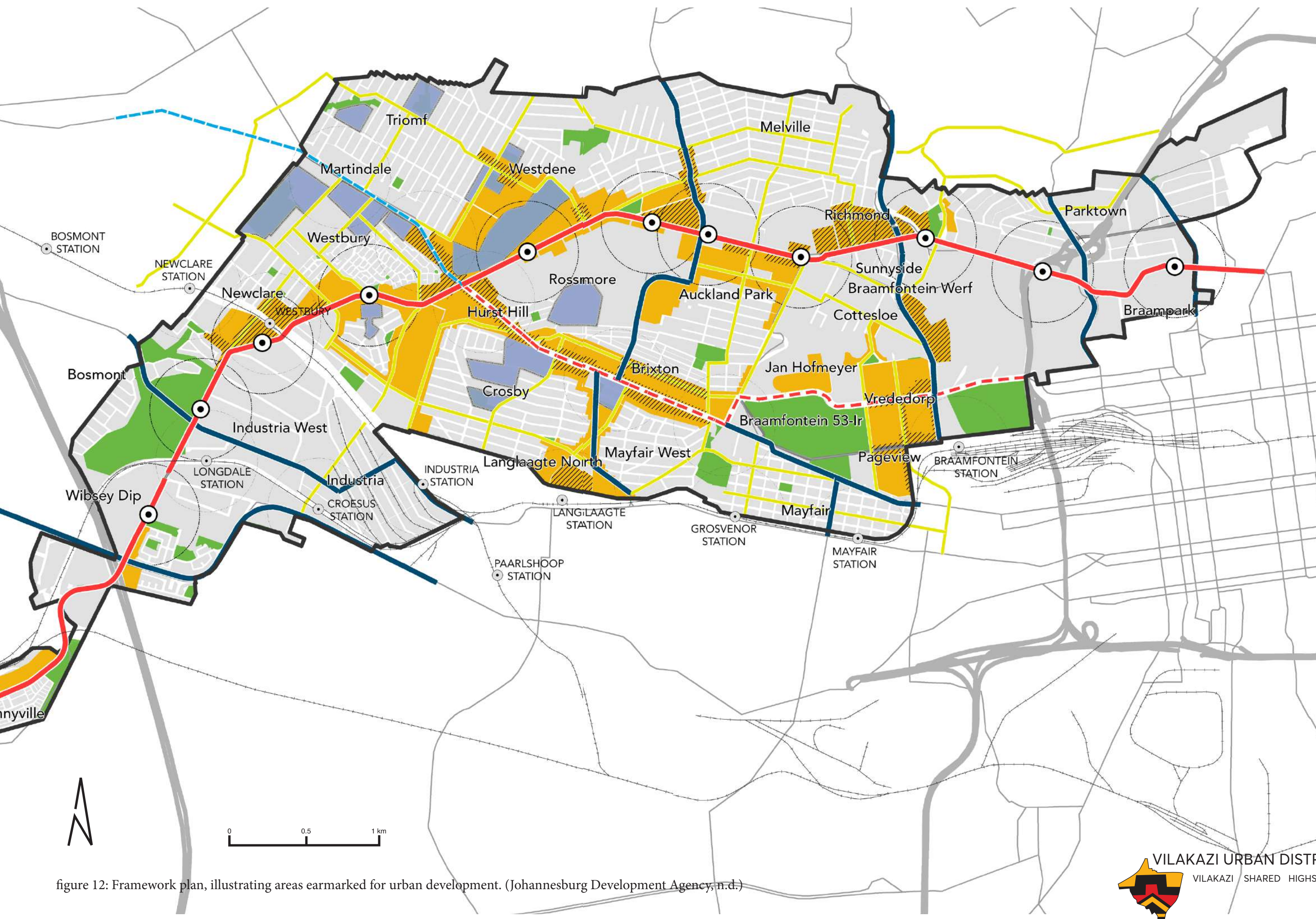


figure 12: Framework plan, illustrating areas earmarked for urban development. (Johannesburg Development Agency, n.d.)

MESO LOCALITY _ORLANDO WEST & EAST

Orlando West, Soweto boasts several cultural and social amenities that draw people from different parts of Gauteng, South Africa and the world internationally. Orlando West and East are separated by the Klipspruit Valley Road which connects the area to the N1 Western Bypass. East of the road, lies the Orlando Stadium which was constructed shortly before 2010 FIFA World Cup (a) which is now home to the Orlando Pirates football club. A stone's throw away from the stadium lies the Orlando East Communal Hall, Sports & Recreation (b). On the adjacent street (Mooki street), there are several high schools, places of worship, the Orlando Magistrate Court (c), the Orlando Post Office (d), SAPS Orlando Police Station (e), UJ Soweto YMCA Residence (f), Orlando Rail Station (g) and the Orlando West Swimming Complex (h). The infrastructure, social and cultural amenities render the Orlando West and East area rich for future development and urban connectivity. These amenities (a-h) are in a 30 min walking and 10 min driving radius from Vilakazi Street.



figure 13: . Orlando Stadium (News24, 2022)



figure 14: Meso locality. (Author, 2021)

MICRO LOCALITY _VILAKAZI PRECINCT

The main attractions to the area are the heritage tourism amenities; Hector Pieterse Memorial Museum (a), Mandela House Museum (b), Desmond Tutu House (c) and the Schools (d) that played pivotal roles in the 1976 Soweto uprising, which have given opportunities to local economies to invest in and cater for tourists. Artisans, traders, photographers, and performance artists have various offerings for tourists. Small informal frontyard dwellings have been formalised to heritage restaurants which offer South African traditional food and beverages. This experience offers tourists an authentic experience of the South African cuisine and history simultaneously

**Boundary of Vilakazi Street Precinct*



figure 15: Heritage Consumption. (Author, 2022)



figure 16: Micro locality. (Author, 2022)

STUDY AREA_ INCREMENTAL DEVELOPMENT



2000: Shortly after the implementation of democracy in South Africa most of the socio-cultural heritage, and the provision of public amenities had not been acknowledged for the previously disadvantaged population, Orlando West, Soweto was exemplary of this. Resultantly, the government focused on cultural heritage and spatial development to address the past social ills.



2012: The Vilakazi Street Precinct upgrading was completed in 2010 alongside the World Cup to accommodate international tourists who would have also visited the Orlando Stadium which is nearby. This included the upgrade of the schools (e), transport interchanges (f) and pedestrian (g) and vehicular infrastructure (h). See Vilakazi Street precinct upgrading.



2004: At the turn of the first decade, several public amenities were developed and they included urban upgrades to accommodate international and local visitors and to improve the living conditions of the immediate inhabitants. The Hector Pieterse Memorial Museum (a), and Mandela House museum (b) were key components for the development of the Vilakazi Precinct area.



2018: The continuous increase of visitors created greater opportunities for local businesses and entrepreneurs. More restaurants such as Kwa Luchaba (i), retailers (j), informal traders and artists (k) formed a business node along Vilakazi Street and the Hector Pieterse Memorial Museum.



2008: Consecutive to the development of socio-political amenities, social amenities such as educational facilities, transport nodes and health care facilities were developed. The Sisulu Mandela Clinic (c) developed on the edge of this precinct to accommodate access for more communities. Simultaneously, Sakhumzi's restaurant (d) was extended.



2021: With a ever growing middle class, more locals and neighbouring town visitors have access to the "international tourist" amenities, which formalises the area as a business node. This has lead to limited parking areas, an increase in building density, increased security measures through higher boundary walls for the local inhabitants and loss of the street as public space.

figure 17: Vilakazi Street Precinct Historical Development. (Author, 2022)

MICRO LOCALITY _VILAKAZI STREET PRECINCT UPGRADING

The Vilakazi Street Precinct was upgraded at the turn of the century, to accommodate international and local tourists who visit the area for the struggle heritage which includes the schools involved in the ‘1976 Soweto Uprising’ and the homes of the Nobel Prize winners, Nelson Mandela and Desmond Tutu. The upgrade covered a 1.8 km radius, providing pedestrian and traic movement inrastructure to a total project cost o approximately R1.7 million.



figure 18: Entrance to Vilakazi Street with hands spelling ‘Vilakazi’. (JDA, n.d.)



figure 19: Vilakazi Street near Mandela House Museum. (JDA, n.d.)

Historically, the upgrade was sufficient, today it primarily suffers from a higher influx of visitors, an increased population density, and a lack of amenities to accommodate the locals and visitors.

Client: Johannesburg Development Agency
Proessional Team: Goba Consulting Engineers and Project Managers
Main Contractors: Bophelong Construction (Pty) Ltd.
Major Subcontractors and Suppliers: JAC Road Surfacing, Bosun Brick, AfriSam, Drift Super Sand

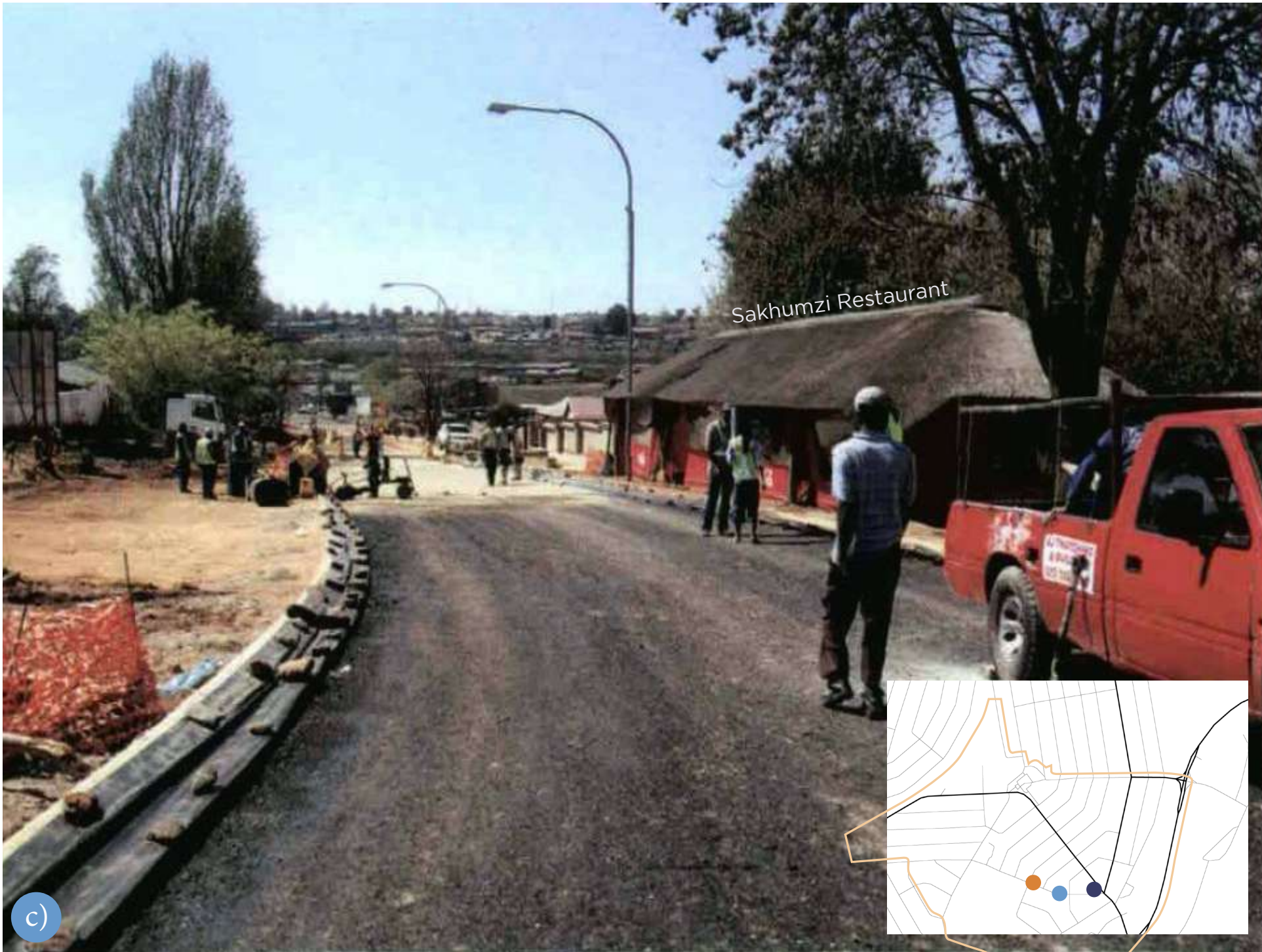


figure 20: Vilakazi Street realignment near Sakumzi's Restaurant. (JDA, n.d.)

a) The Phefeni Rail Station is one of the renowned stations in Soweto. It connects the Vilakazi Street Precinct to the the rest of Gauteng via railway. b) The Mandela Sisulu Clinic was constructed on the site of Phomolong Clinic, a facility that gained notoriety during the 1976 revolt when many of the injured kids sought care there. c) The Belle Primary School and d) Mbuyisa Makhubu Primary School students played a role alongside other local schools during the 1976 uprising.



figure 22: Orlando West social infrastructure site study. (Author, 2022)

figure 21: Key macro locality map. (Author, 2022)

EXISTING CONDITIONS _MACRO

h) The Hector Pieterse Memorial Museum was named after one of the first casualties which were shot by the police during the 1976 uprising. But it commemorates all the participants who marched. e) Uncle Tom’s Community Centre is a large hall that the residents of the local community gather in for communal, social and religious reasons. f) The Department of Home Affairs Soweto, assists local residents and foreign nationals with national legal documents such as identity documents, passports and visas. g) Kwa Lichaba Chesanyama is a restaurant and bar that serves a menu of barbecued “braaied” meat and other traditional food.

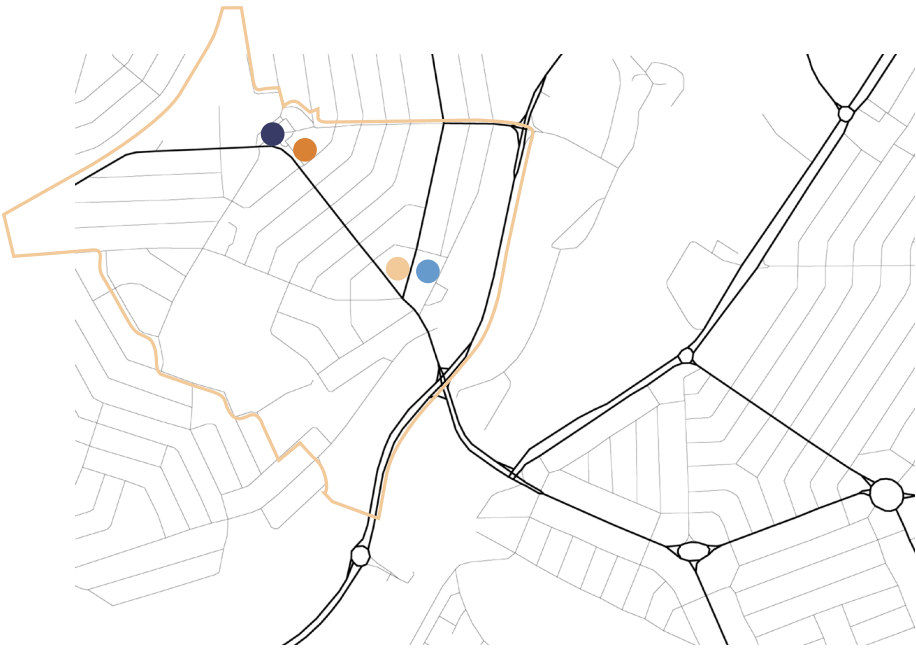


figure 23: Key macro locality map. (Author, 2022)



figure 24: Orlando West social infrastructure site study. (Author, 2022)

i) The Orlando West High School and j) Phefeni Senior State School hosted the main student body and gatherings that lead to the 1976 student uprising. k) Mandela House is an international attraction that preserves, presents the historical heritage of the Mandela family. l) Sakhumzi is one of the first and most renowned restaurants in the area. It boasts a comprehensive buffet of local traditional cuisine and drinks.



figure 25: Key micro locality map. (Author, 2022)

figure 26: Vilakazi precinct social infrastructure site study. (Author, 2022)

EXISTING CONDITION _MICRO

The m) Tutu House is a national heritage site which Bishop Desmond Tutu used live in. At has since been upgraded from its initial architectural form. It curently serves as a private residence, making it unaccessible to the public. There is a lot of n) Informal Trading that occurs in the area. Most traders sell arteacts, art, clothes and photography. The o) Art and Performances are mainly directed at international visitors. They mainly take place in the streets and pedestrian walkways in front of the restaurants and prominent attractions in the area. With the aim to enable underprivileged communities private companies and banks have installed p) Free Wifi Spots to assist the community with digital connection. These areas have latent potential as gathering spaces for the local residents.

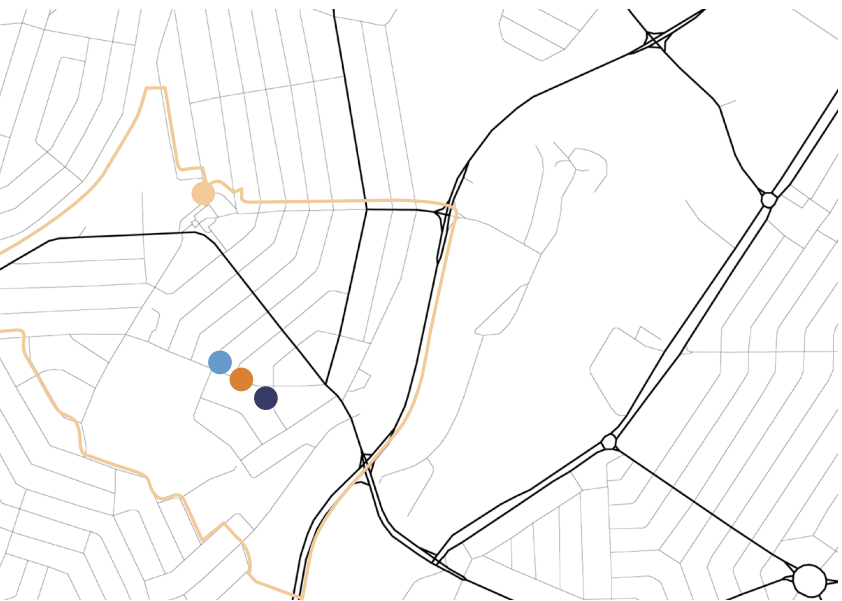


figure 27: Key micro locality map. (Author, 2022)

figure 28: Vilakazi precinct micro site study. (Author, 2022)

TOWNSHIP REDEVELOPMENT_PRECEDENTS_spatial legacy

Learning From Our Own Backyard is an investigation on the informal development of backyard rooms in South Africa. This might be a servant's quarter, a granny flat, 'a room for rent', an informal shop, a spaza or a hairdressing salon. In many instances these backyard rooms have been informally developed built by the owners of the formal house in an attempt to derive income from their properties. (Poulsen & Silverman, 2002) Backyard rooms are a notable feature of South African urban landscape and have a long-history in South African cities.

The proposal does not only aim to use land and space more efficiently but it creates public and private courtyards which allow for passive surveillance, parking and an opportunity for future extension(s) for economic income. The flexible-modular design formalises informality, decreases the required infrastructure and services by sharing property boundary wall and implementing a row housing typology which improves the urban edge condition and street frontage. The proposed design aims to incorporate these principles to address the consequences of the spatial legacy.

Architects: Lone Poulsen and Melinda Silverman
Completed: 2002
Location: Alexandra, Johannesburg



figure 29: Urban Expansion. (Poulsen et al, 2002)

URBAN REDEVELOPMENT_PRECEDENTS_urban governance

Ekhaya Neighborhood Project + Upgrades of Existing Buildings is about finding a home in the city, of accepting a place and thereby a reciprocal relationship with their environment for which they start to take responsibility. It is therefore this process which over a period of time starts to impact on the environment. Through an incremental process of community organizing, making contact and opening channels of communication, eKhaya established a neighborhood Association of property owners. (Savage+Dodd , 2002) This setup of forum for building manager, formed links with other local community disorganization and built relationships with city councilors, departments, agencies and law enforcement authorities.

This project was successful in achieving a safer urban environment within a community which is known for high rates of crime, violence and vandalism. The implementation required an intangible solution which lead to a social cohesion through shared ownership and public responsibilities. This type of agency enables urban surveillance and a better livable environment through urban governance. The proposed design aims to implement tangible and intangible solutions that would improve the urban experience for the residents.

Architects: Savage + Dodd Architects
Completed: 2002
Location: Hillbrow, Johannesburg



URBAN DEVELOPMENT_PRECEDENTS_building densification

Hatfield is located on the East of the Tshwane CBD. It boasts several embassies , departmental offices and it is well known for its University of Pretoria precinct. This area has developed into a radiant district for students and young working professionals. It has developed as one of Tshwane’s major districts through infrastructure, building densification, policies and socio-economic development. The highlighted areas in the diagrams depict the area’s development over the past two decades. The Hatfield business district is anchored by the shopping centre, Gautrain station, small businesses, restaurants and offices around it, The east development area, like the Vilakazi precinct is primarily residential with several heritage buildings. It is a buffer between the universities main campus and sports campus.

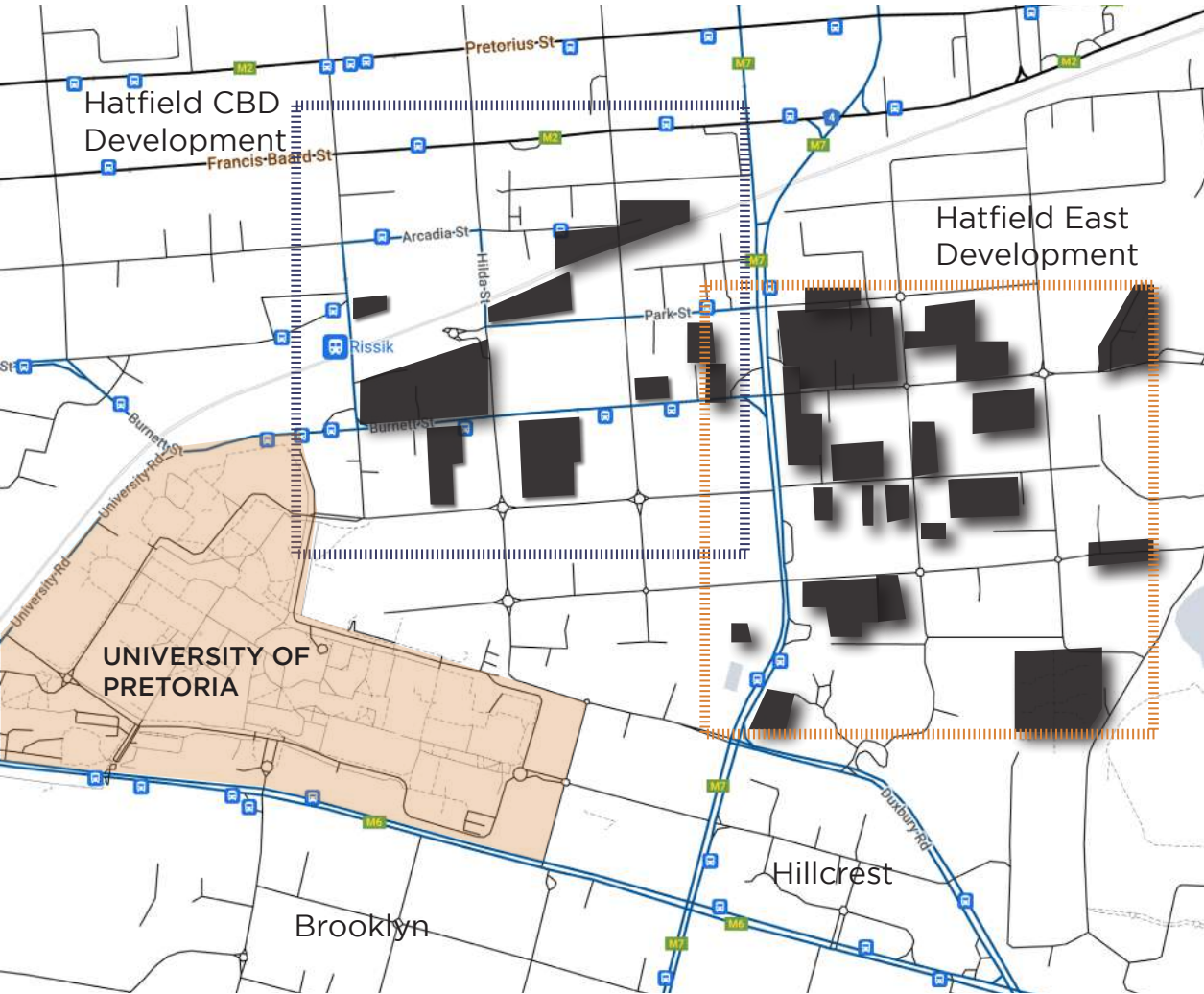


figure 31: Urban Expansion. (Poulsen et al, 2022)

Hatfield CBD Development



2022



2017

Hatfield East Development



figure 32: Hatfield urban development. (Author, 2002)

URBAN REDEVELOPMENT_PRECEDENTS_building densification

Hatfield CBD Development



2012



2007



2002

Hatfield East Development



This urban development study area was chosen as an illustration of how a residential area with an anchor attraction can densify over time. Although the forces of change in this study area are different to that of the Vilakazi Street Precinct (VSP) some principles may be observed.

Hatfield is anchored by the University for which all the surrounding developments were to accommodate for. The VSP is anchored by its cultural heritage, memory and social amenities which have seen the area's residential built form develop and improve in its economic value. Hatfield has increased its building densification to accommodate students. The VSP has done so to accommodate cultural attractions and economic exchange.

Formalising the urban densification strategy of VSP can address the ongoing spatial issues that limit the existing business, cultural attractions and most importantly offer the residents an economic opportunity on their property value and ownership.



STRATEGIC AREA FRAMEWORK

figure 33: Vilakazi street art. (Authur, 2022)

ISSUES: VILAKAZI PRECINCT

The Vilakazi street precinct has superceded the success which was desired from the urban upgrade a decade ago. It now suffers from illegal formal structures encroaching the public realm, over populated walkways, wrongly used as for parking, performances and informal trading. This paradigm impeaches upon the community's lived experience as township streets have become a shared space; for events such as weddings, funerals, sports and performances, entrepreneurial opportunities, and as a space for cultural exchange.

The apartheid spatial planning did not accommodate for the observed developments, resultantly the residents resort to informal spatial planning. The spatial legacy was oppressive through not accommodating for "urban luxuries" such as recreational facilities and public infrastructure. These issues are explored and highlighted in the mapping in this chapter.

INFORMALITY

- FRONTYARD & BACKYARD DWELLINGS,
- STREET/WALKWAY ENCROACHMENT,
- ILLEGAL SERVICES,
- LACK OF URBAN GOVERNANCE, AND,
- UNSUSTAINABLY BUILT FORM

LIMITED COMMUNAL RECREATIONAL FACILITIES

- PUBLIC SPACE,
- PUBLIC PARK,
- PUBLIC SPORTS,
- PUBLIC RECREATION, &
- PUBLIC SAFETY

LIMITED PUBLIC INFRASTRUCTURE

- PARKING
- PEDESTRIAN WALKWAYS
- CYCLE LANES
- MONO-FUNCTIONAL LANDUSES

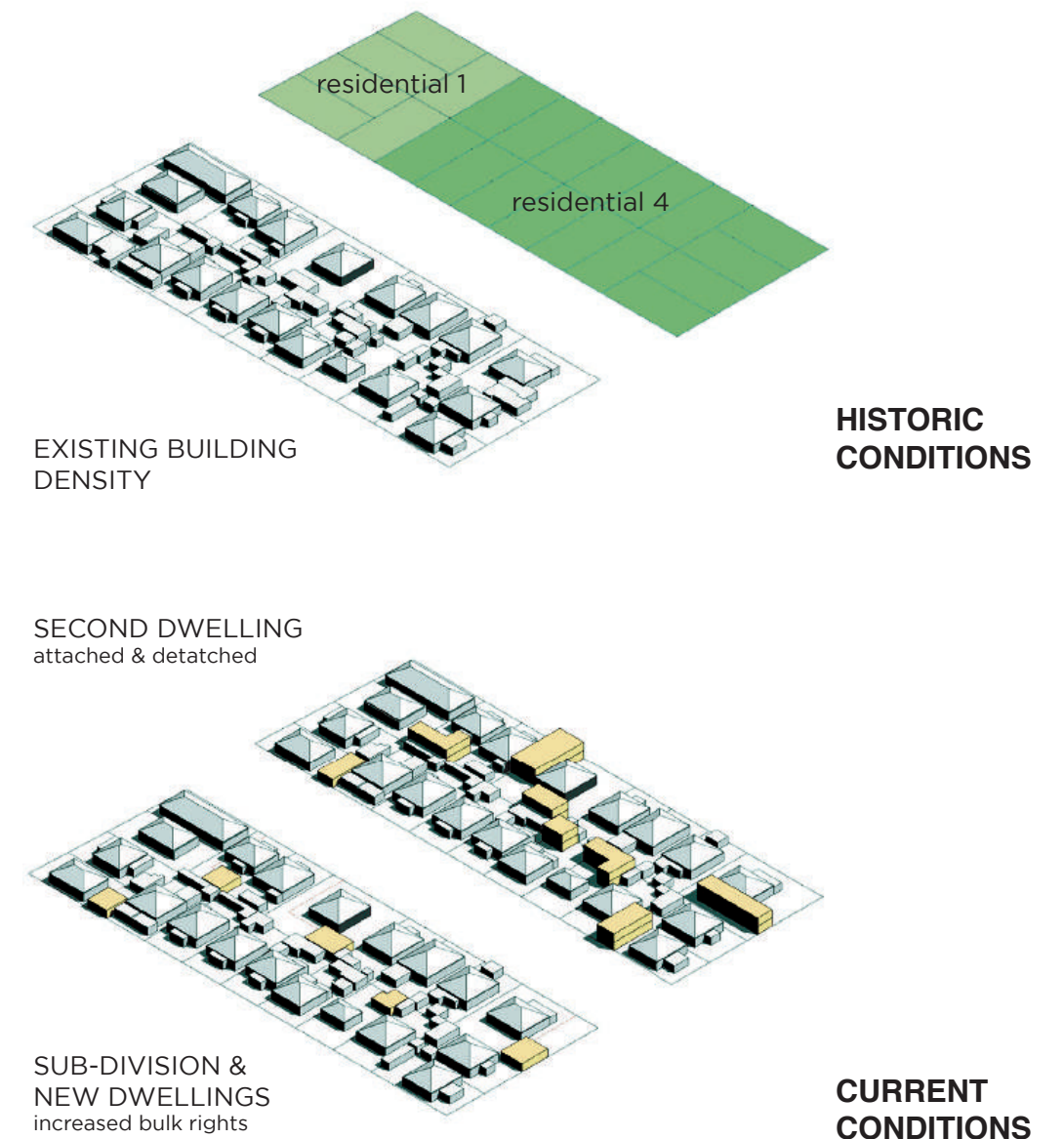


figure 34: Existing low density condition. (JDA, 2018)

DEVELOPMENT STRUCTURE _ORLANDO WEST CONTOURS

The Vilakazi street precinct is located adjacent a rocky outcrop which is the highest in the area. It falls from north-west to south-east towards the Klipspruit river, which forms a natural valley between Orlando West and Orlando East. This topography offers a stormwater management advantage, views of the surroundings and landmarks such as the Soweto Towers and more. The Soweto Towers are a local and international tourist attraction which offer bungee jumping and heritage consumption, similar to the VSP.

The local streets primarily follow the contour lines, making the arterial routes significantly steeper with faster stormwater run-off, Vilakazi Street is characterised by this notion. The design proposal will investigate stormwater calming measures such as reducing the lengths of the long steep roads by changing direction into wiers and bioswales.

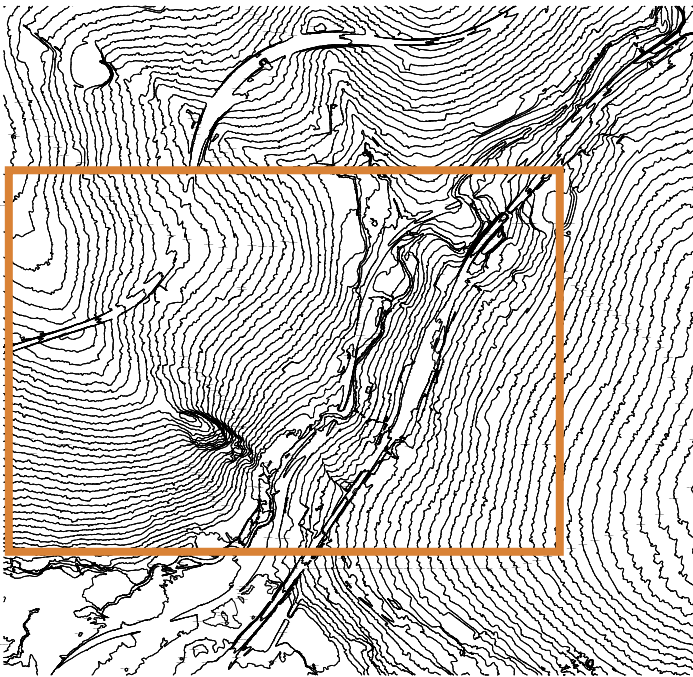


figure 35: Existing Soweto Conditions Keyplan. (Author, 2022)

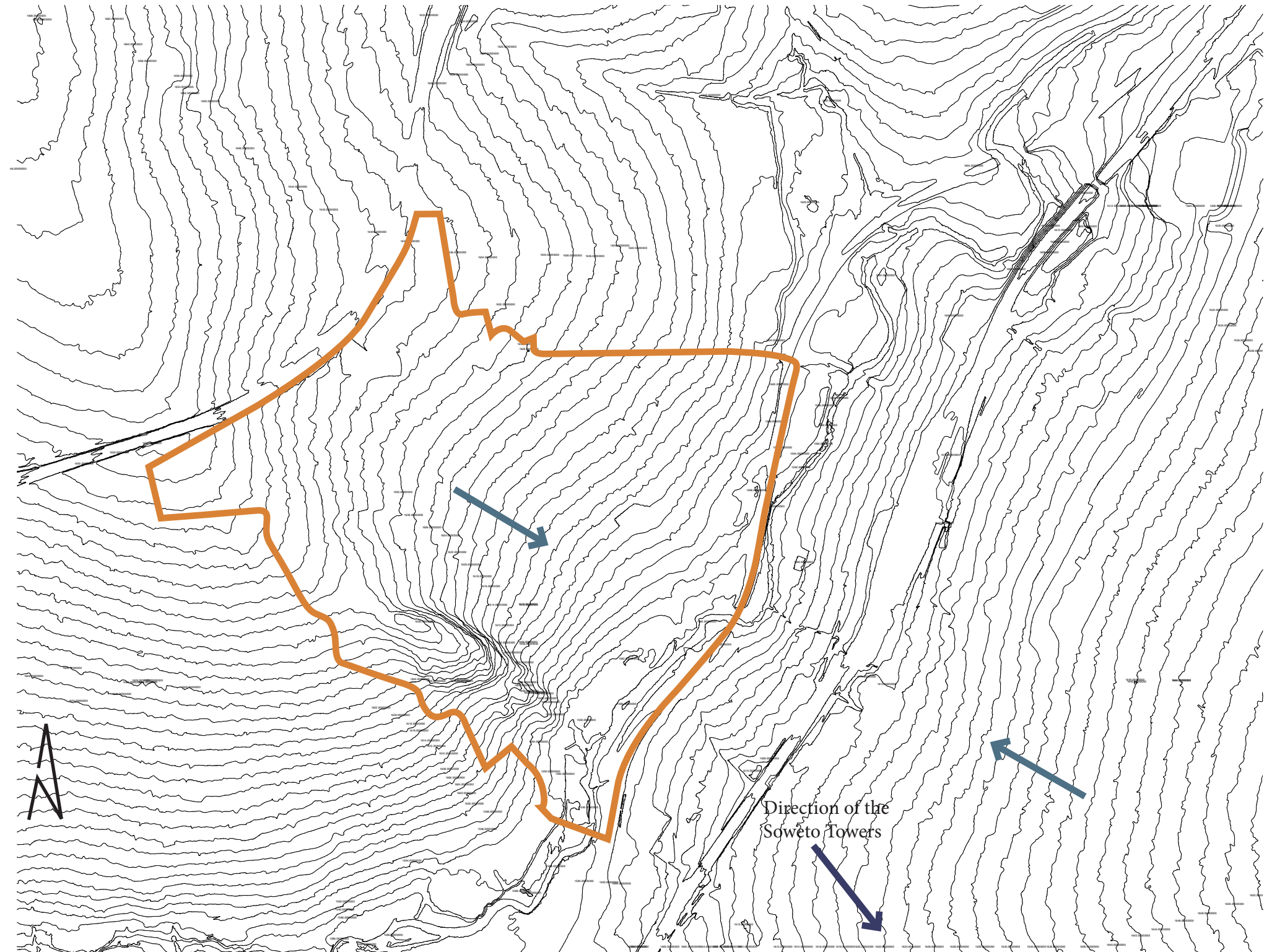


figure 36: Existing Orlando West Conditions. (Author, 2022)

EXISTING CONDITIONS_EXISTING ACCESS_connectivity

The Vilakazi street precinct is accessible by most public modes of transport namely, the metrorail, metrobus, Rea Vaya BRT, Putco bus, and Taxis. It is sandwiched inbetween two railway tracks which lead further into Soweto and connect back to the Johannesburg CBD. Both train stations (Phefeni and the Orlando rail staion) are within a 10 minute walking distance from Vilakazi street (indicated by the 800m radius). There are several Rea Vaya bus stops (green) along the street and informal taxi ranks along Khumalo Main Rd and Vilakazi Street. Having BRT stops on the vibrant Vilakazi Street reduces the public activity and prioritises vehicles over pedestrians.



figure 37: Existing transportation access. (Author, 2022)

EXISTING CONDITIONS_EXISTING SOCIAL INFRASTRUCTURE_disconnected amenities

The social infrastructure in and around the Vilakazi street precinct is in walking proximity, which includes primary health care, education,community development and people centres alongside sports and recreational areas. The topography of the site does not allow for large sports and recreational facilities, however, the wetland along the Klipspruit River has latent potential for recreation and agricultural facilities. Notwithstanding, the long residential blocks make the area more difficult for pedestrians to access the various amenities and public transport.

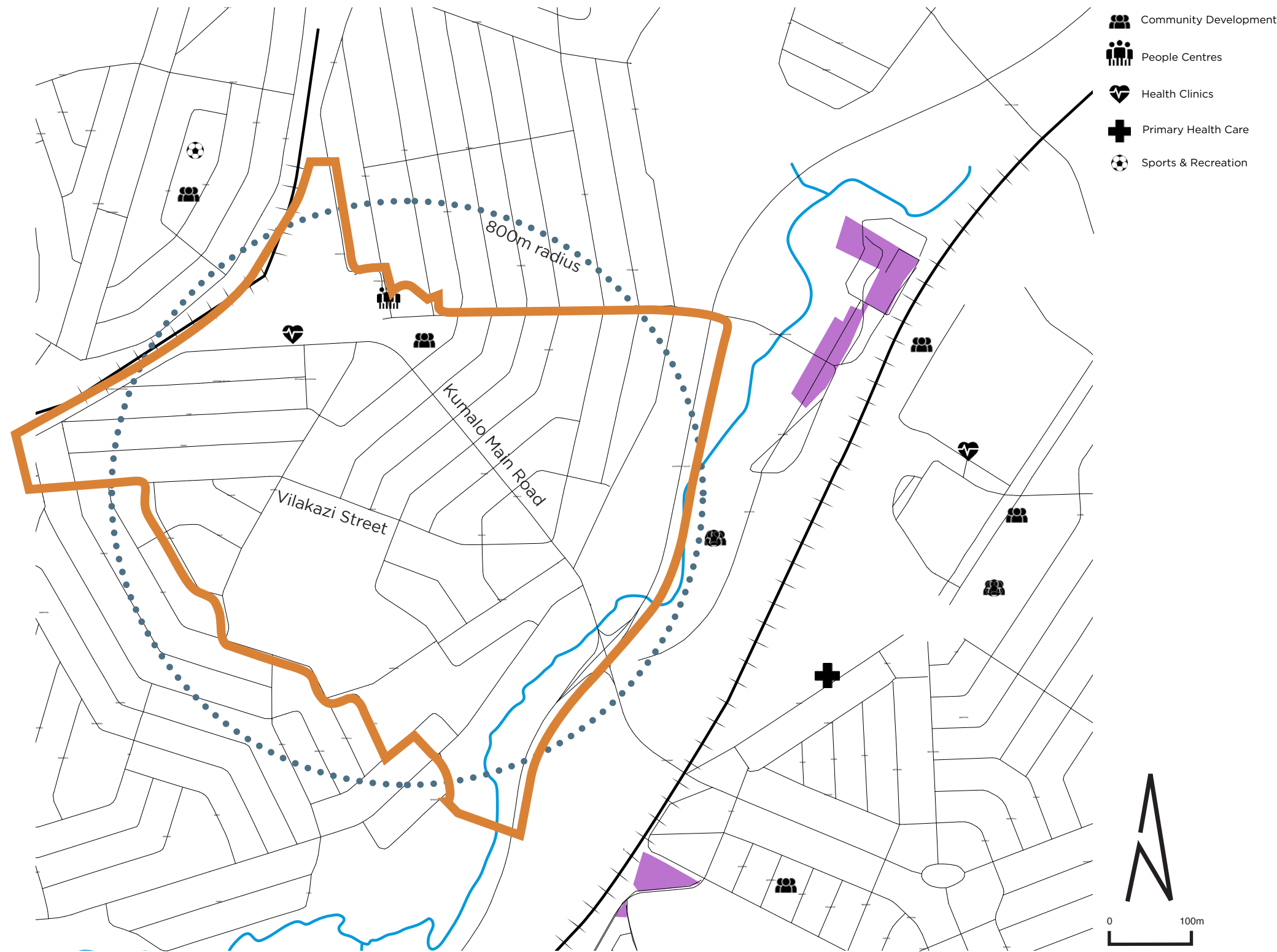


figure 38: Existing amenities settlements. (Author, 2022)

EXISTING CONDITIONS_EXISTING CONSOLIDATED INFRASTRUCTURE

The Vilakazi street precinct is highly accessible, with a good measure of social infrastructure, however, more soft and hard public spaces would serve the local community and visitors of the precinct. The separate development regime enforced single entrances and exits to communities for better crowd control. This notion has limited the accessibility of the focus area, as it is easily accessible from the Klipspruit Valley road which connect it to east of Soweto and Johannesburg. Inadvertantly, this notion creates an ambiguous connection to the west (Meadowlands) and the north (Roodepoort). The amenities are decentralised as there isnt a focal point, street or centre. This requires inhabitants to travel longer distances from their various localities.

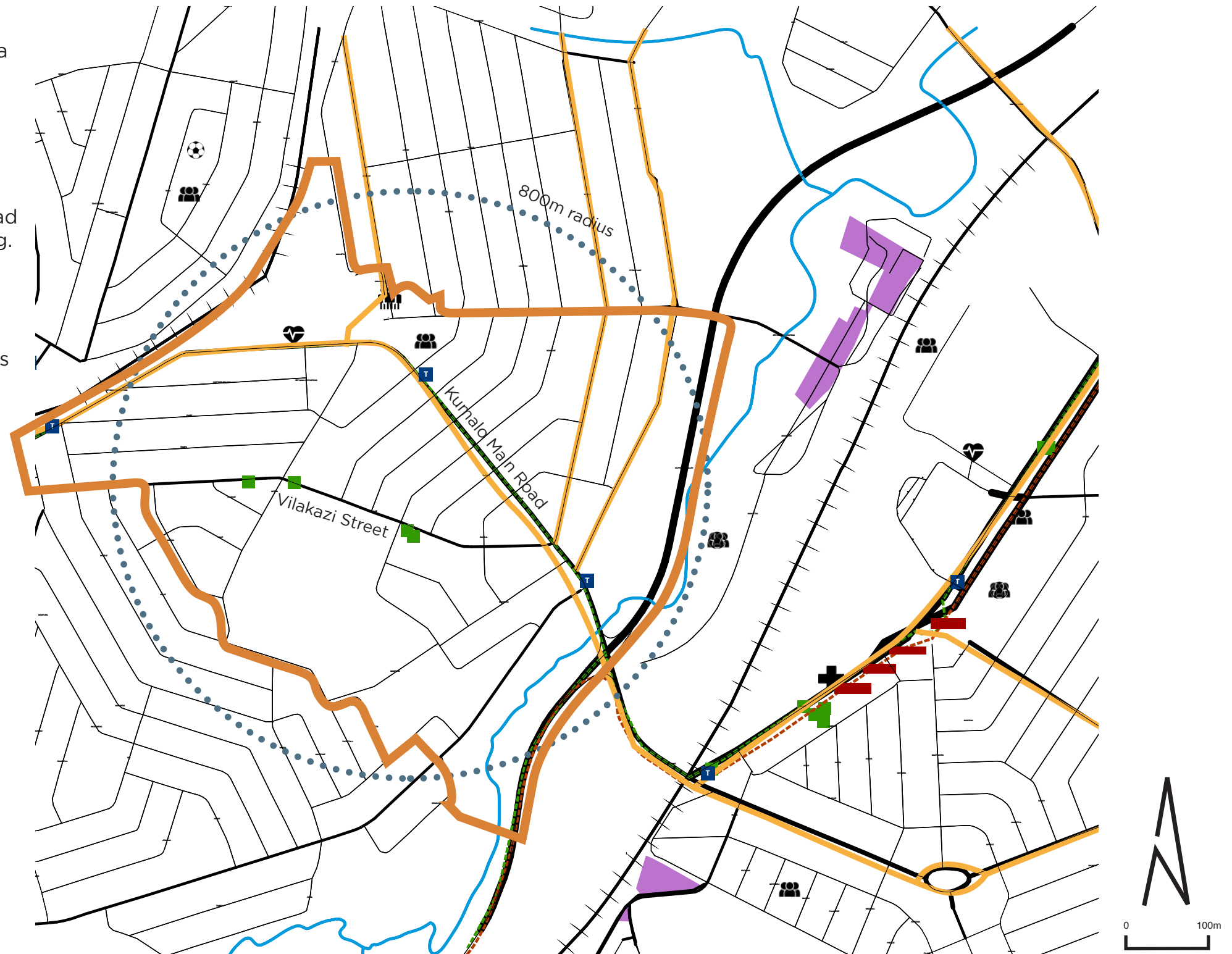


figure 39: Existing consolidated conditions. (Author, 2022)

EXISTING CONDITIONS_EXISTING GREEN INFRASTRUCTURE

Open spaces, public hard and soft spaces are an integral part of a sustainable urban experience. The existing open public space (a) is a public park with a limited amount of landscaping or recreational facilities. The second open space in the precinct is a rocky outcrop (b) which I assume would have been expensive to develop infrastructure at the time. Residents use it as a shorter alternative route to the adjacent neighbourhood. The third open space is the ecological area (c) along the Klipspruit river. The inhabitants of the nearby informal settlements use the river for laundry, potable water and bathing.



figure 40: Existing Green structure. (Author, 2022)

EXISTING CONDITIONS_EXISTING DENSITY

The Vilakazi Street precinct was historically developed as a residential 1 area which primarily consisted of single dwelling low cost housing units with several large sites for educational, religious and community facilities. Following the Soweto Uprising several sites were conserved as “special” heritage sites which commemorate the event and the political leaders. These special sites are what have given the Vilakazi Precinct its cultural and its socio-political heritage. The inhabitants of Vilakazi Street have imbraced this through creating restaurants, museums, arts and crafts store to cater for local and international visitors.



figure 41: Existing Density structure. (Author, 2022)

MACRO LOCALITY _ORLANDO WEST & EAST FIGURE GROUND MAP

The figure ground map depicts a very clear and intentional separation of two residential settlements, which are separated by a “buffer zone” which could consist of large roads, railway tracks, industrial park and ecologically sensitive areas. This notion works when well it is when conceived as a transit orientated development, however, it forms a spacial scar in the continuous fabric of communities.

The Vilakazi street noli map highlights a common township street typology that occurs between to anchor destinations or amenities. The residential homes that are not on the main “corridor” or street do not negotiate public versus private space to serve street activity. Vilakazi street expands and contracts around key landmarks which cause the surrounding neighbours to adapt to the footfall in the area. The landuse map reinforces the gatherings found on the previous maps as it illustrates the relationship that the building functions require of its users.



figure 42: Existing Vilakazi Street Precinct (Author, 2022)

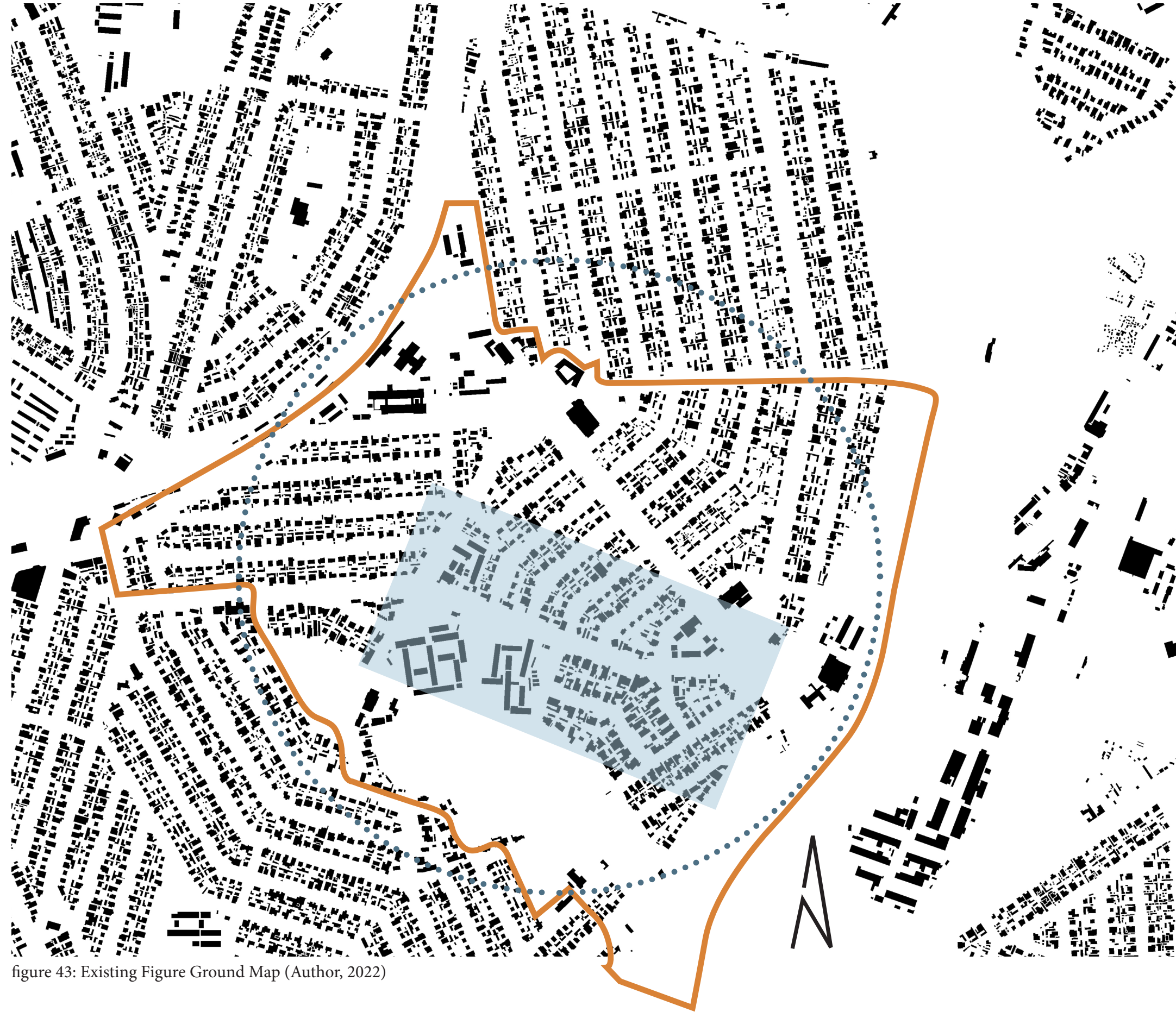


figure 43: Existing Figure Ground Map (Author, 2022)

MICRO LOCALITY _VILAKAZI STREET NOLI & LANDUSE MAP

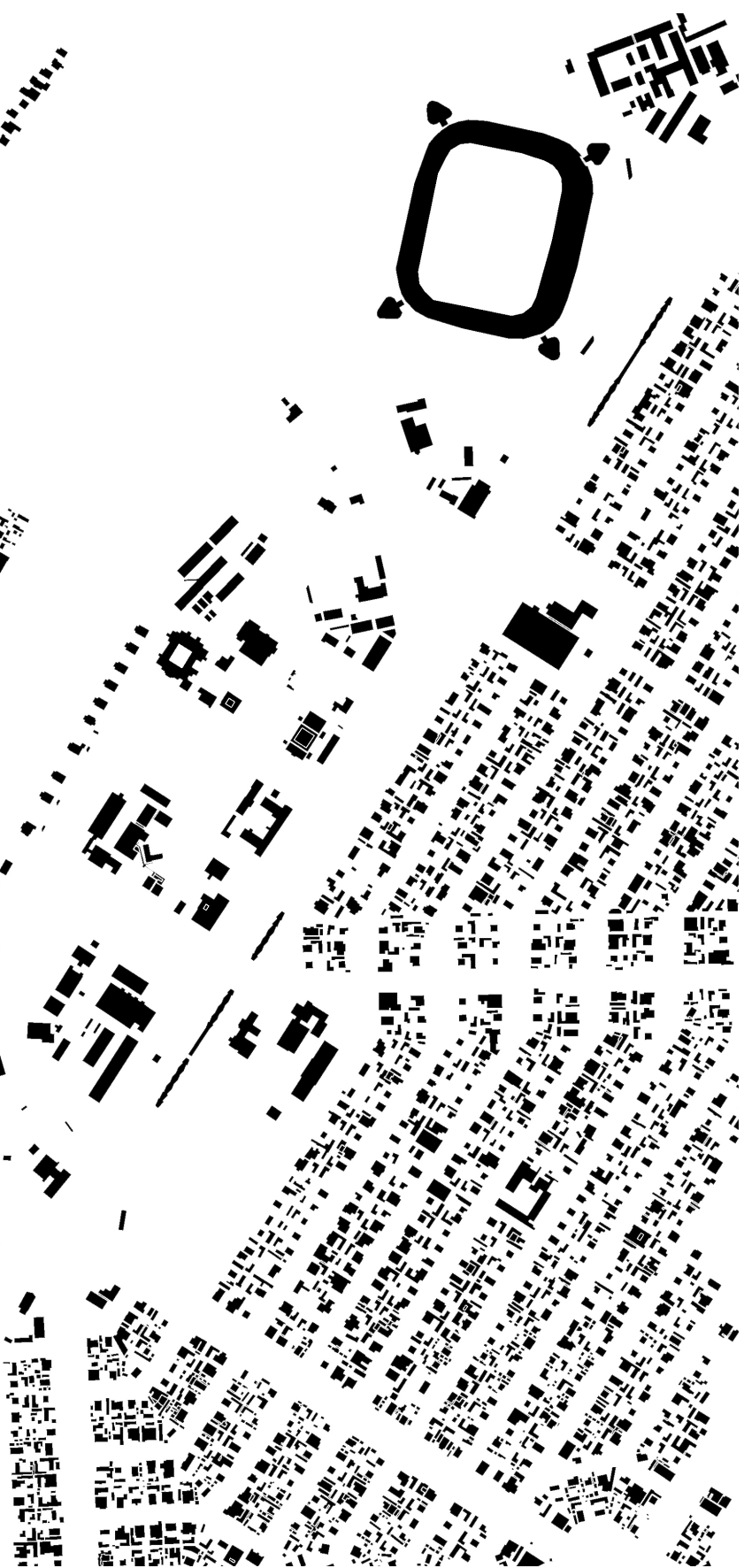


figure 44: Existing Landuse Map (Author, 2022)

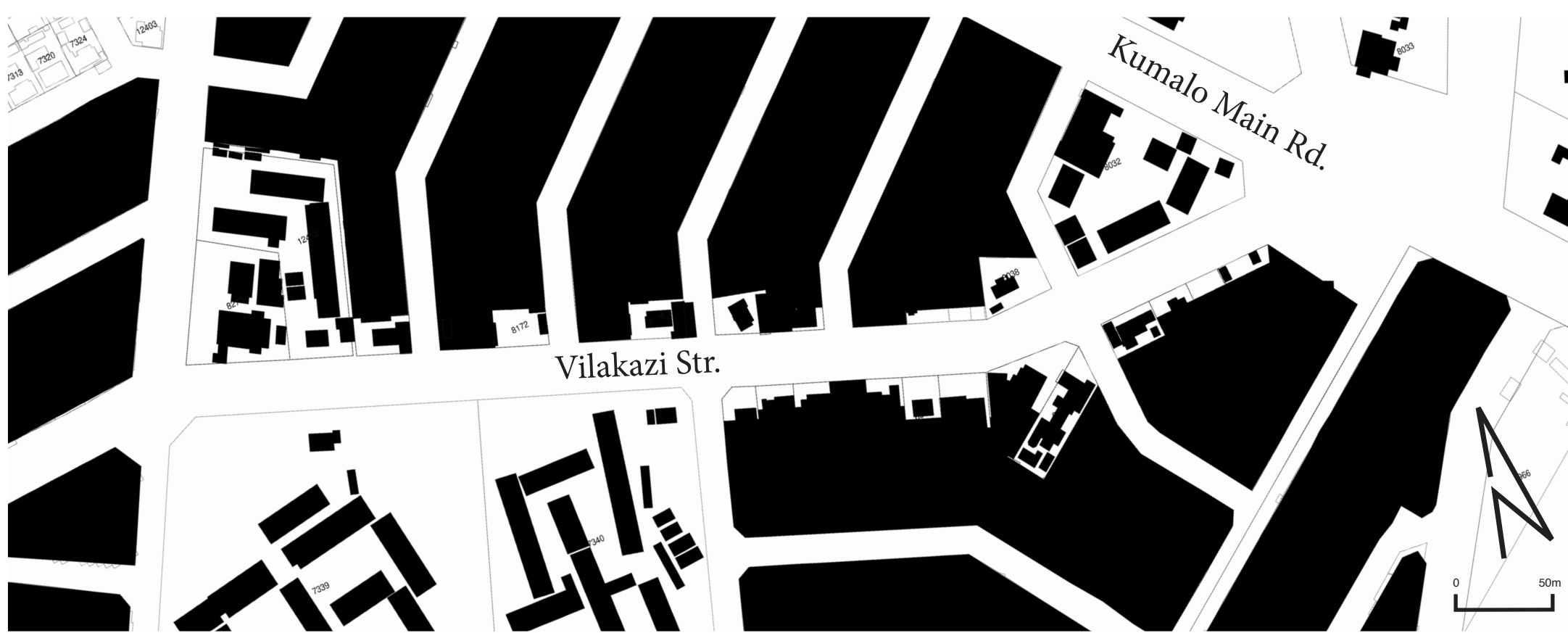


figure 45: Existing Noli Map (Author, 2022)



PRECINCT PLAN

figure 46: Hector Pieterse Museum Square. (Author, 2022)

PROPOSAL: VILAKAZI PRECINCT PRINCIPLES

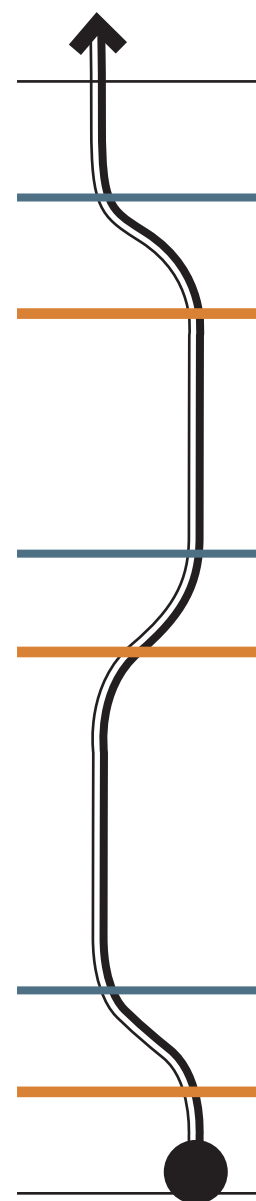


figure 47: Shared street diagram. (Author, 2022)

SHARED STREET

- DISTINCT ENTRANCE,
- ELIMINATE THE CONTINUOUS CURB,
- USE TRAFFIC CALMING MEASURES,
- PRIVATE ON-STREET PARKING, AND INCORPORATE OUTDOOR FURNISHINGS AND LANDSCAPE

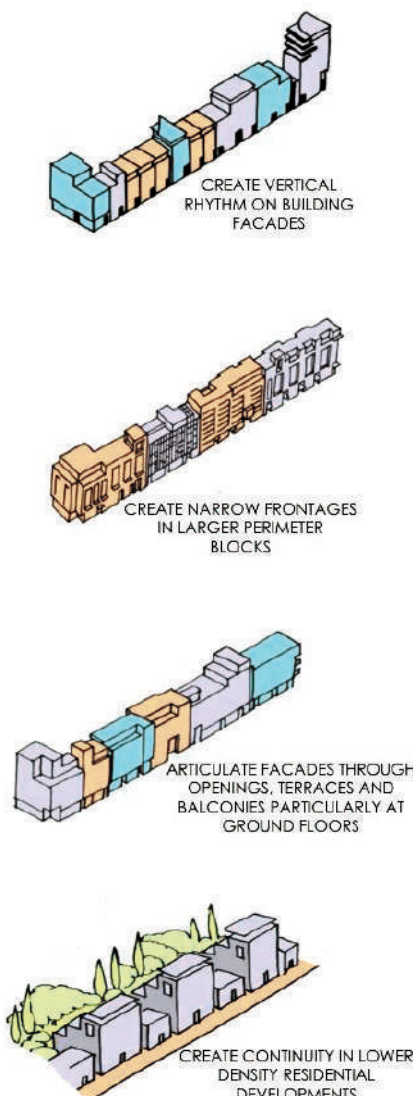


figure 48: Urban fabric diagrams. (Author, 2022)

URBAN FORM

- LIVE/WORK TYPOLOGY,
- PRIVATE SERVICE DELIVERY, PARKING COURT & COURTYARDS,
- HARD PUBLIC SPACE,
- GREEN PUBLIC SPACE,
- CONTINUOUS ARCHITECTURAL LANGUAGE,
- MEMORABLE IDENTITY, &
- SUSTAINABLE BUILT FORM

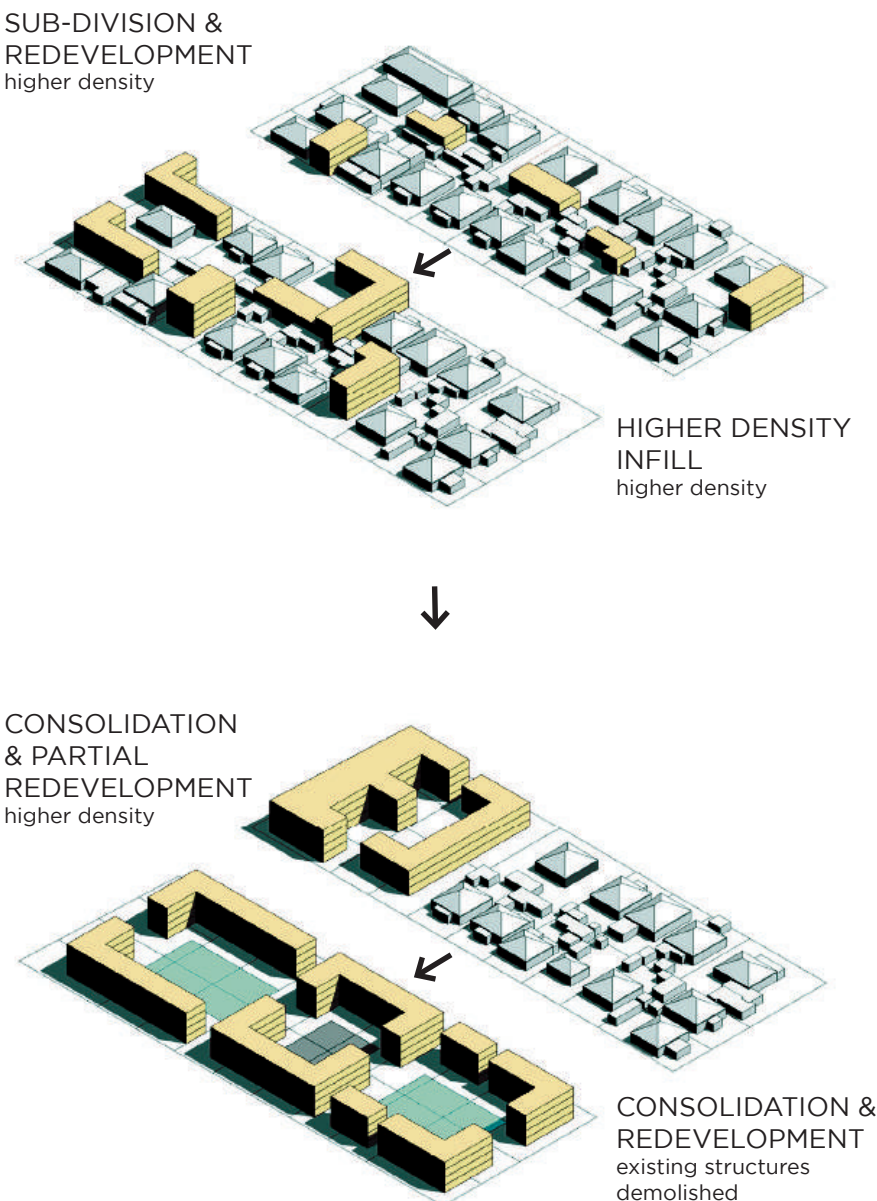


figure 49: Urban fabric development. (JDA, 2018)

INCREMENTAL DEVELOPMENT

- STRUCTURED PARKING
- SHARED STREETS
- INCREASE BUILDING DENSITY
- MIXED LAND USES
- PEDESTRIAN ROUTES

MOVEMENT STRUCTURE _PROPOSED MOVEMENT

Khumalo Main road is the primary access route into the Vilakazi Precinct. It crosses the Klipspruit Valley road into Orlando East and continues past the Hector Pieterse Museum and the Phefeni rail station into Meadowlands. Vilakazi Street branches off this road west towards Meadowlands as well, resultantly it can be used as a bypass to Meadowlands. To slow down the vehicular movement, introduce more urban public space, and sustainable stormwater management solutions I propose a shared street.

In the 1960s, the Netherlands introduced the idea of shared streets, which has since spread to several cities all over the world. The goal is to transform streets into sociable places that promote neighborhood participation, promote active transportation, and improve urban areas' all-around livability. To guarantee that shared roadways are functional and safe for all users, yet, implementation calls for rigorous design, community involvement, and regular review.



figure 50: Existing movement structure keyplan. (Author, 2022)

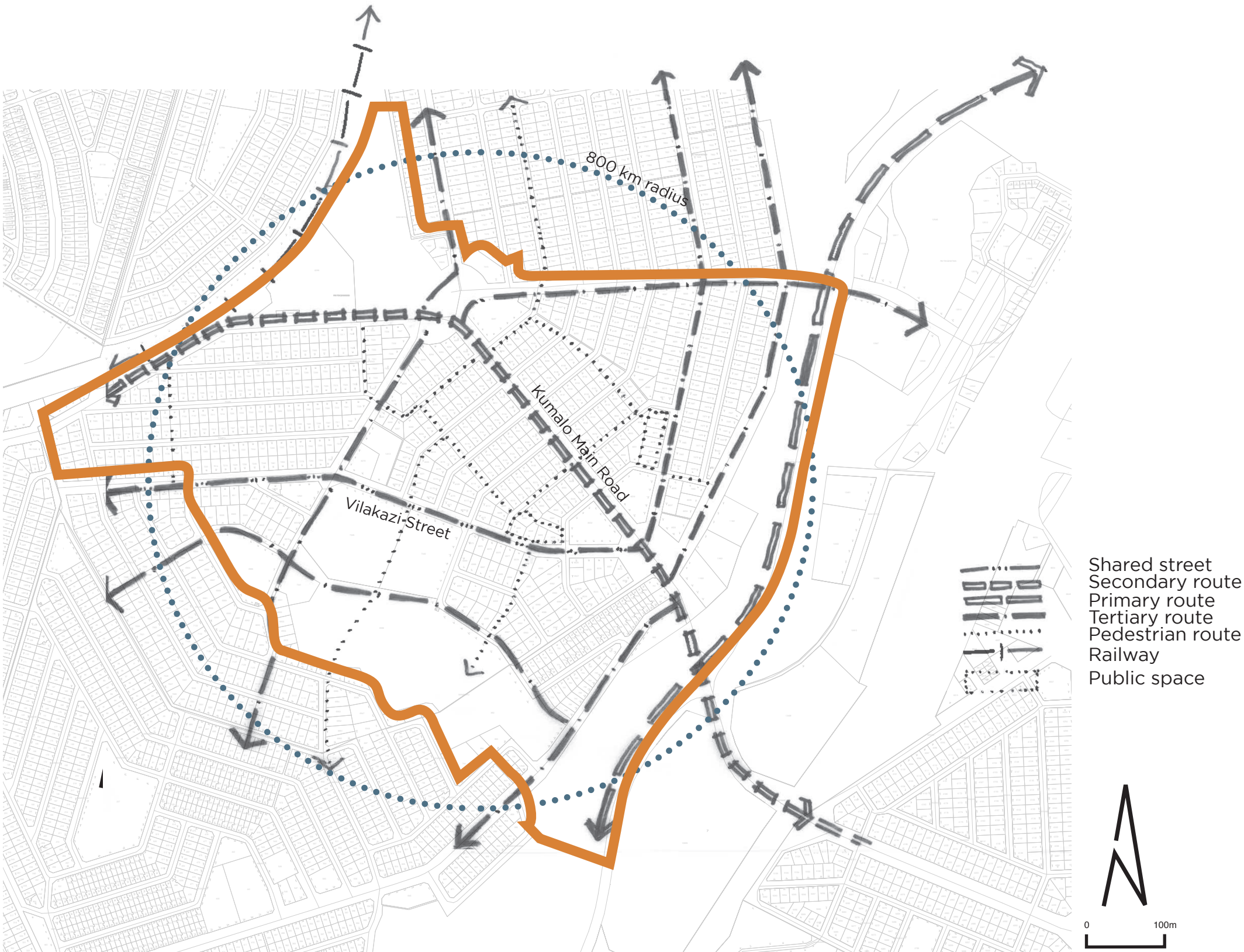


figure 51: Proposed movement structure. (Author, 2022)

BLOCK STRUCTURE_PROPOSED BLOCKS

The existing block structure caters mainly for vehicular movement through the longitudinal blocks. The proposed block structure aims to improve the connectivity of the Vilakazi Precinct within itself and the adjacent community over the existing rock outcrop by reducing block sizes to approximately 100m in each direction and introducing new routes and pedestrian pathways. The reduced block size increases the route options that pedestrians may take. This approach increases visual permeability and allowing more visual access to more intersections in all directions.



figure 52: Existing block structure. (Author, 2022)



figure 53: Proposed block structure. (Author, 2022)

EDGE CONDITIONS_PROPOSED EDGE CONDITIONS

The proposed edge structure aims at consolidating the existing properties in order to create stronger urban edges to facilitate street activity and passive surveillance through the perimeter block typology. Secluded internal courtyards are to accommodate the inhabitants requirements such as playgrounds or off street parking.

It is important to note that perimeter block developments may have some challenges. If improperly planned, they could prevent sunlight from entering buildings, restrict access to outdoor areas, or result in a significantly confined and monotonous urban atmosphere. To guarantee a balanced and comfortable urban environment, it is vital to take into account aspects like sunlight exposure, the accessibility to facilities, and the scale of the development.



figure 54: Existing movement structure keyplan. (Author, 2022)



figure 55: Existing Amenities. (Author, 2022)

NODAL STRUCTURE_NODAL CONNECTIVITY

On a macro scale, the proposed precinct acknowledges the future expansion of the Gautrain which is proposed to have a station in Soweto, Jabulani. The proposed nodal connectivity identifies and aims to connect the existing heritage and cultural attractions. This approach would reinforce and celebrate the existing infrastructure through creating pedestrian links and adjacent spaces with functions which would serve the main nodes. Like beads on a string the various nodes would form accents along the pedestrian experience, creating unity and continuity throughout the precinct.

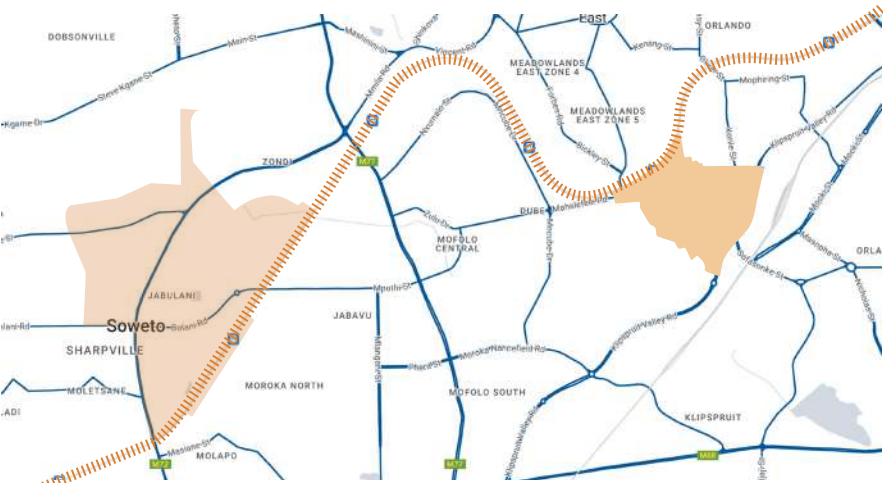


figure 56: Jabulani Locality to Vilakazi Precinct. (Author, 2022)

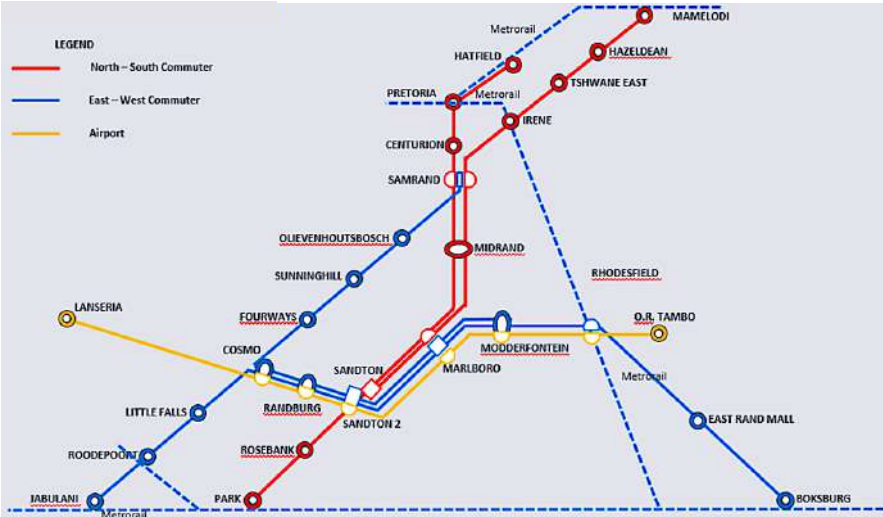


figure 57: Proposed Gautrain extension. (Moneyweb, 2022)

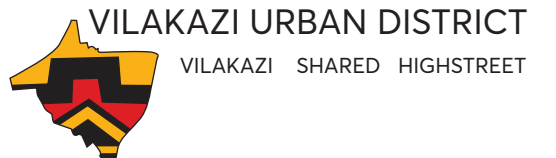


figure 58: Proposed node connection. (Author, 2022)

- Proposed pedestrian link
- Proposed pedestrian link closed-end
- Proposed pedestrian link open-end
- Secondary proposed pedestrian link

The proposed pedestrian link starts at the existing Phefeni Rail Station and is open ended at the entrance of Vilakazi Street. It aims to create a path that connects all the culturally attractive sites through the shortest route.

- NODE 1: Hector Pieterse Memorial Museum
- NODE 2: Vilakazi Street
- NODE 3: Social Amenities



GREEN STRUCTURE_PROPOSED GREEN INFRASTRUCTURE

The proposed green infrastructure expands on the recently developed urban upgrade after the completion of the museums. It introduces soft and hard open spaces that are sparesly spaced to serve the surrounding communities meaningfully by placing them on, near or adjacent to amenities that would benefit from them. The slope of Vilakazi street is fairly steep, A weir-bioswale system will be employed to improve the stormwater management and the fauna and flora that currently exists in the precinct.



figure 40: Existing Green structure. (Author, 2022)



figure 59: Proposed Green structure. (Author, 2022)

ACTIVITY & MIX STRUCTURE_PROPOSED DENSITY

The proposed building density aims to reflect the continuously growing population which is at 1% of South Africa’s population of 60.6 million people. The intersection at which Vilakazi street meets Kumalo main road and Xorile street, the city blocks are to be developed as the central business district by having a higher building density. This notion would decline as the blocks radiate away from this intersection. This development strategy would maintain the views from the higher points within the precinct as emphasised within the Hector Pieterse Memorial Museum.



figure 41: Existing Density structure. (Author, 2022)

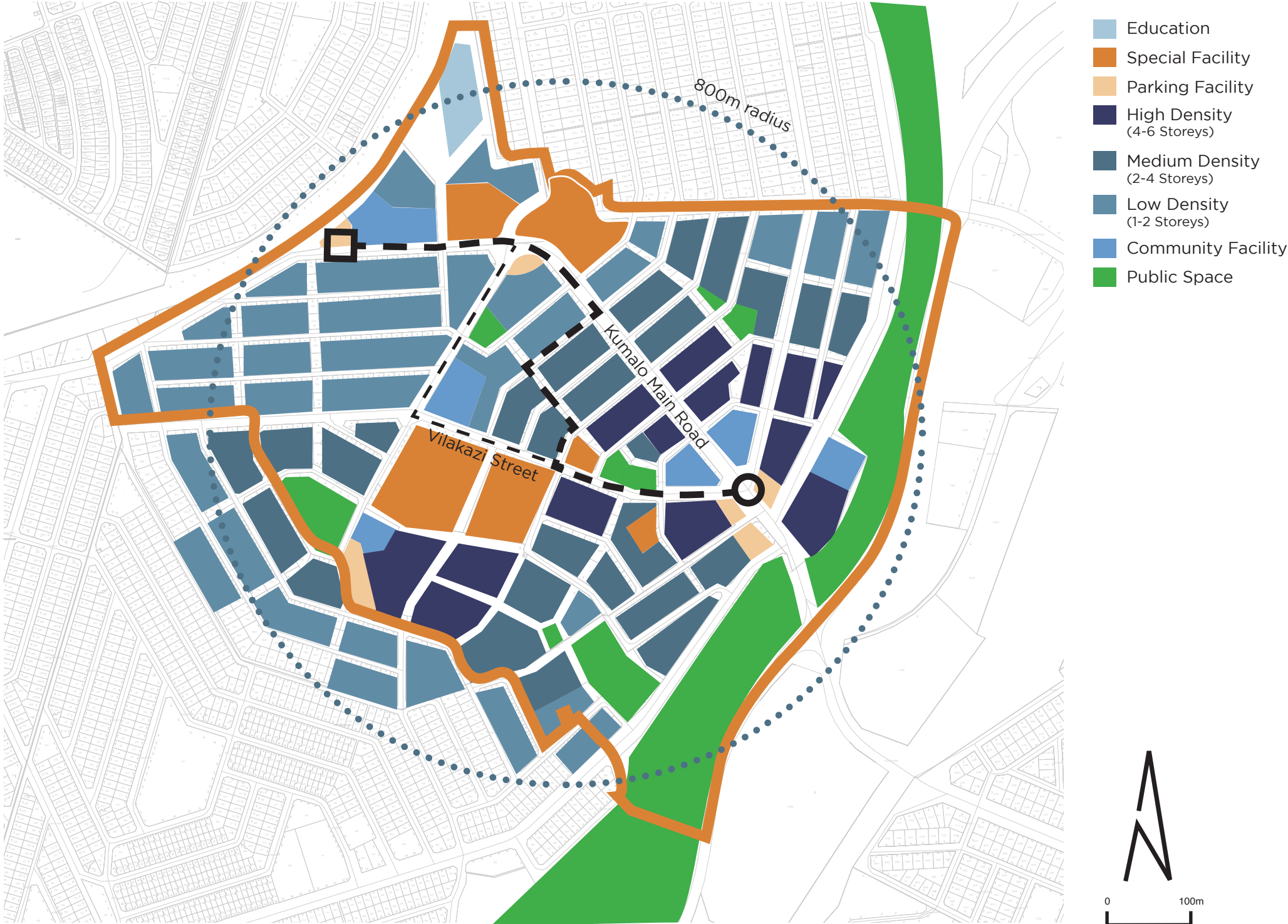


figure 60: Proposed Density structure. (Author, 2022)

DEVELOPMENT STRUCTURE_PROPOSED TRAFFIC INFRASTRUCTURE

The proposed traffic infrastructure aims to liberate Vilakazi street of heavy vehicles and its use as a bypass through the precinct. Several connecting routes will connect the street to feeder stops to enable pedestrians equitable access. The transformation of Vilakazi street to being a shared will allow visitors and the inhabitants to have a sustainable urban environment that allows for cultural exchange, leisure, business and recreational activities which will be offered with a unique genus loci.

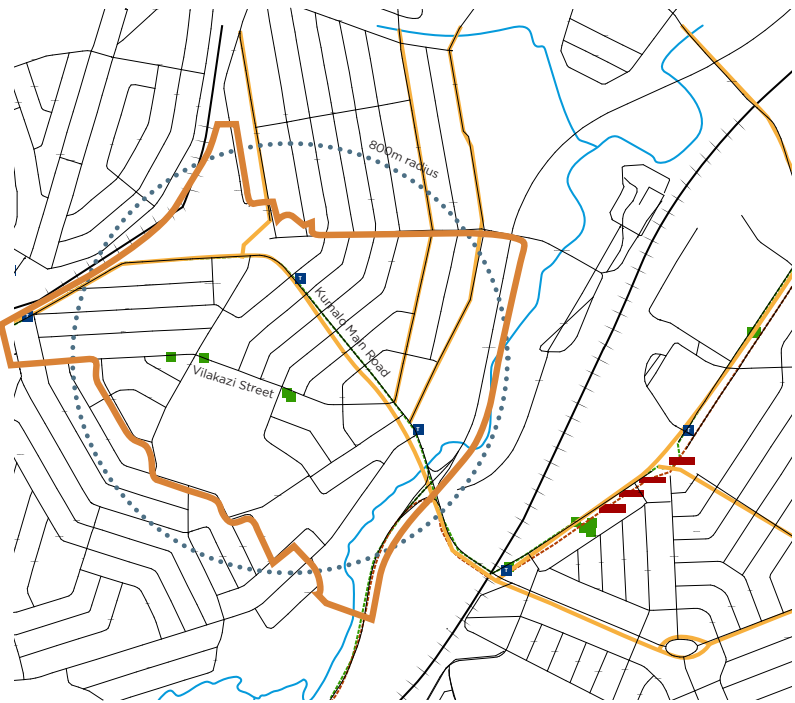


figure 37: Existing transportation access. (Author, 2022)



figure 61: Proposed movement and transport structure. (Author, 2022)

COMPOSITE STRUCTURE_PROPOSED PRINCIPLE PLAN

The proposed principle composition aims to achieve a sustainable city district through celebrating the existing cultural heritage and the opportunities it has created for the local community. The production of mixed-use nodes, supporting public spaces and the strong connectivity through different modes of transport would create a socio-economically inclusive environment.

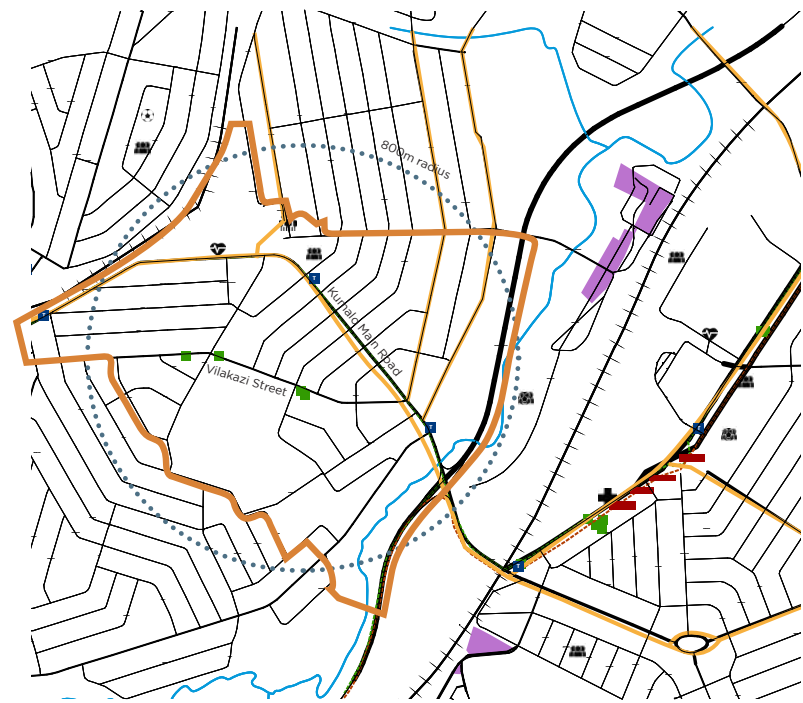


figure 39: Existing consolidated conditions. (Author, 2022)



figure 62: Proposed consolidated conditions. (Author, 2022)



INCREMENTAL DESIGN

figure 63: Soweto-Gold Tower. (Pexels, 2022)

DESIGN PROPOSAL_EXISTING

Illustrates the existing conditions and the highlighted buildings are major contributors to the public streets and life of the precinct. These buildings consist of restaurants, tuck shops, heritage buildings, places of worship, government departments, and museums. (see existing conditions and existing land uses in the document) Places o interest and heritage sites are indicated in white on the map.

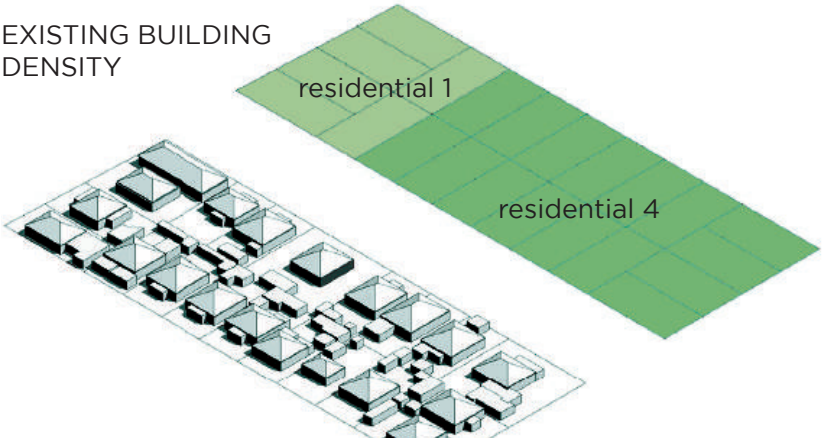


figure 64: Existing building density and landuse. (JDA, 2018)



figure 65: Existing building density aerial map. (Author, 2022)



figure 66: Existing building density and places o interest (Author, 2022)

DESIGN PROPOSAL_WOONERF

Separate development planning and spatial principles limited access into and out of townships. This notion often produced meandering streets with few intersections, which has resulted in non-walkable communities and high speeds along longer streets. This has resulted in accidents and illegal racing within neighbourhoods. The residents of Soweto use informal traffic calming measures by placing “robust” rubble along the streets. The strategic placement of the rubble forces drivers to change lanes at “random” intervals and at a controlled speed. Within areas with limited shared space, this creative solution takes the street as communal space for weddings, funerals, recreation and creates awareness of the residents and their children who often play in the street.

TOWNSHIP SHARED STREET

- LIMITED AMOUNT OF PUBLIC SPACE
- EVENTS (weddings, funeral)
- RECREATION (sports, performances)
- INFORMAL BUSINESSES (restaurant, hair salon)
- LOVE & CULTURE (boys at the corner)



figure 67: Informal traffic calming measures in Soweto. (Author, 2022)

DESIGN PROPOSAL_PRECEDENTS

The woonerf concept was developed in the late 1960s in Netherlands, in the city of Delft. Residents were unhappy with speeding vehicles scaring their neighbourhoods and their cultural landscape, therefore making it unsafe. In response, the residents paved the roads and created meandering paths. This simple gesture initiated the woonerf –or “residential yard” in Dutch. Which is a residential street which places priority on the living environment rather than vehicular infrastructure. Since the conception of the woonerf other localities such as Germany, United Kingdom, Europe, Japan, Australia and Israel have employed the concept through various interpretations. Notwithstanding, what remains true in all instances is that these streets are shared among pedestrians, cyclists, and motor vehicles, where pedestrians are priority over cars.

SHARED STREET PRINCIPLES

- DISTINCT ENTRANCE,
- ELIMINATE THE CONTINUOUS CURB,
- USE TRAFFIC CALMING MEASURES,
- PRIVATE ON-STREET PARKING, AND INCORPORATE OUTDOOR FURNISHINGS AND LANDSCAPE



figure 68: Shared street. (Pexels, 2022)

DESIGN PROPOSAL_SHORT-TERM PROPOSAL

Illustrates the proposed interventions which would serve as the initial points of intervention. The proposed buildings focus on strengthening the existing land uses and “nodes” (see nodal structure in the document). The general approach would aim at partially consolidating and subdividing erfs with new buildings of increased building density, improved street frontages and public/private space.

1. In “node 1” near the Hector Pieterse Museum: The proposed double storey housing adheres to Poulsen’s & Silverman’s housing model which formalizes informality, decreases infrastructure/ services, and flexible modularity (see precedents). Across the road mixed land use developments accommodate a vocational school and a home for the aged with accommodation above the ground floor. The introduction of pedestrian access routes would improve the walkability of the precinct and continuity of the intervention on Vilakazi street.
2. In “node 2” Vilakazi street is proposed as a Woonerf which augments the street and sidewalks into public and shared space. The extended public spaces adjacent to publicly contributing buildings serve as multifunctional platforms that could allow for performances, seating, parking, marketing and or display, which all depends on the function of the adjacent buildings function. A redevelopment of the Mandela House museum and the Sakhumzi restaurant would celebrate the existing functions formally by improving their urban contribution and street frontage.
3. In “node 3” Kumalo main road forms the gateway into the precinct. An existing department of home affairs is proposed to be redeveloped to increase its capacity, urban contribution and systems. The adjacent building would serve as a public sports centre which would be overlooking a soccer pitch with combi courts.

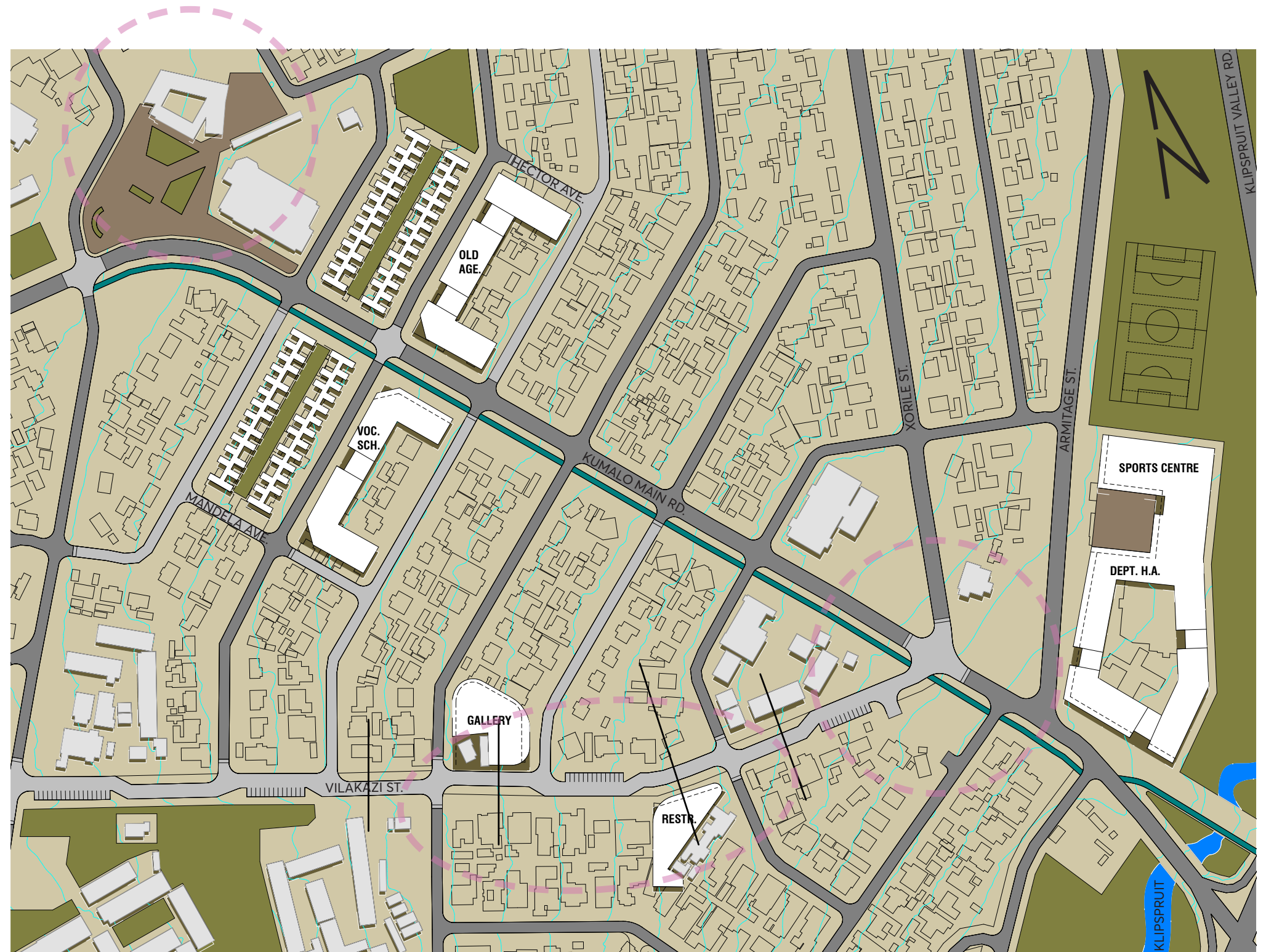


figure 69: Proposed short-term site plan. (Author, 2022)

DESIGN PROPOSAL_SHORT-TERM PROPOSAL

SECOND DWELLING
attached & detached

SUB-DIVISION &
NEW DWELLINGS
increased bulk rights

figure 70: Current building density development. (JDA, 2018)



figure 71: Existing building development (Author, 2022)

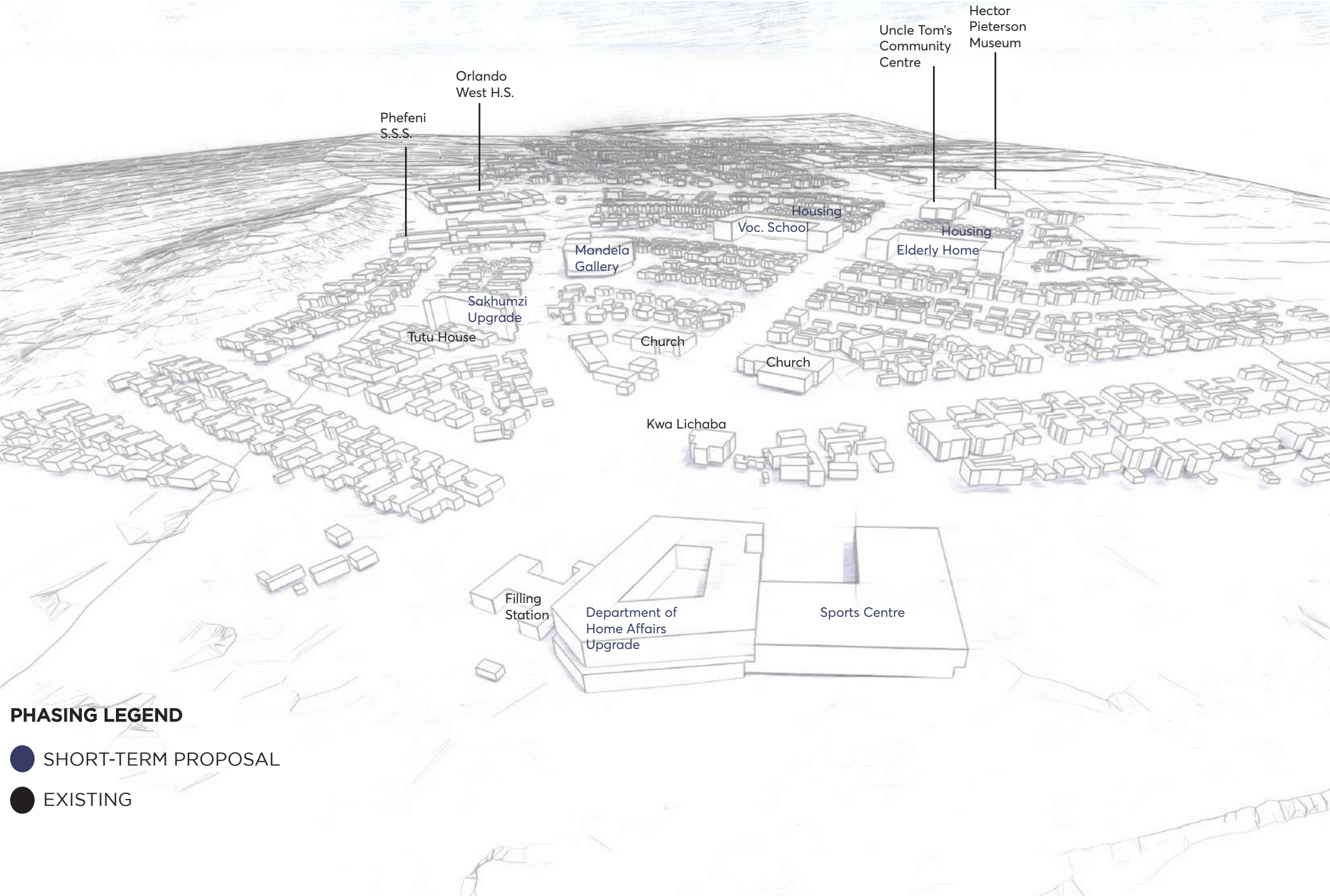


figure 72: Proposed short-term building development. (Author, 2022)

DESIGN PROPOSAL_MID-TERM PROPOSAL

Illustrates the proposed interventions which would serve as the intermediate points of intervention towards a “true city district”. The general approach would aim at partial consolidating and subdividing erfes with new buildings of higher density infill, improved street frontages and public/private space. Several intersections along Kumalo Main road are proposed to host public transport stops, therefore, the street materiality is to be paved to as a traffic calming measures.

1. In “node 1” near the Hector Pieterse Museum:

An additional block of double storey housing and a block of mixed land use buildings will accommodate preparatory school.

2. In “node 2” north to the Nelson Mandela gallery and museum, a large community centre would serve the community with multifunctional opportunities for performance arts, sports hall, and as a place of worship. South of the gallery, affordable accommodation would be developed to serve small business, entrepreneurs and students of the university branch at the gateway of Vilakazi street. Adjoining the building a parking structure would accommodate students and visitors to the precinct. Opposite the university would be multifunctional offices with coworking facilities and services.

3. In “node 3” the Kwa Lichaba Chesanyama is proposed to be formalized with higher infill and it is to expand or accommodate other entertainment facilities. Adjoining the building there would be a structured parking which would serve the precinct at alternative peak times. As the use and importance of the sports facility develops it is foreseen that accommodation will be required.

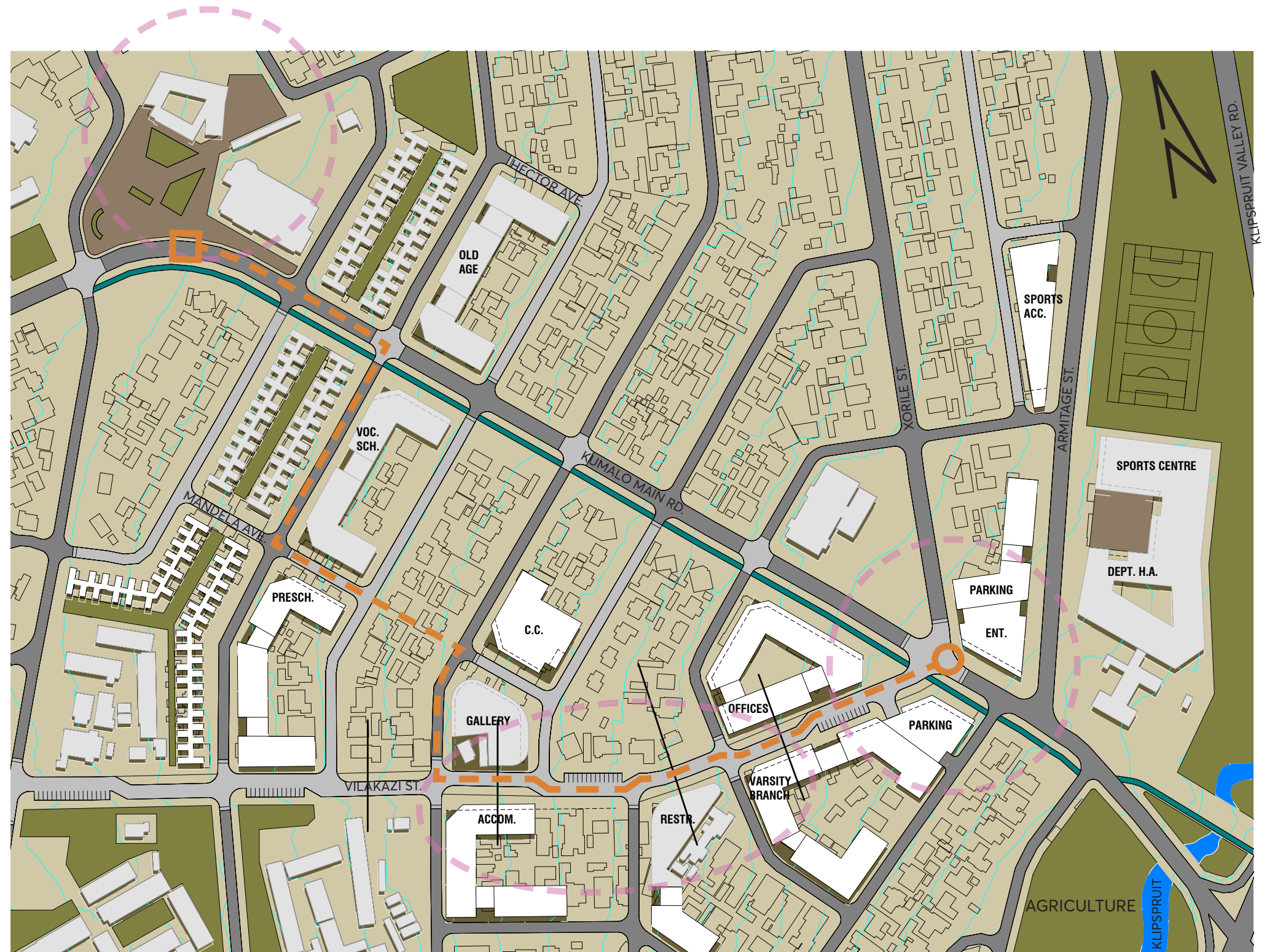


figure 73: Proposed mid-term site plan. (Author, 2022)

DESIGN PROPOSAL_MID-TERM PROPOSAL

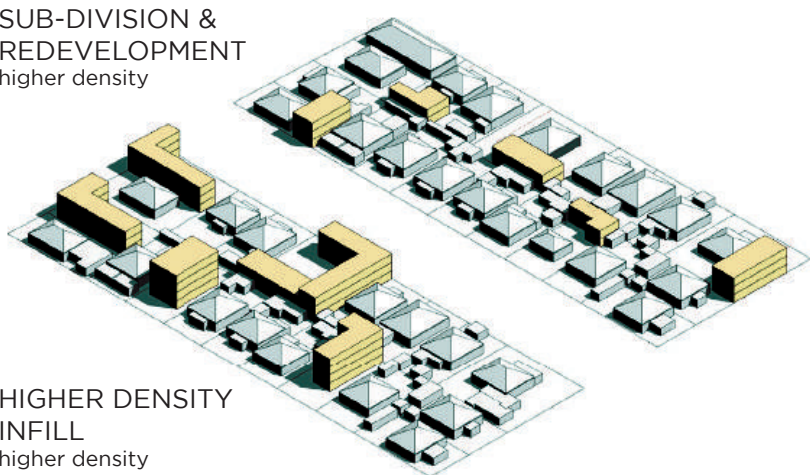


figure 74: Proposed mid-term building density development. (JDA, 2018)

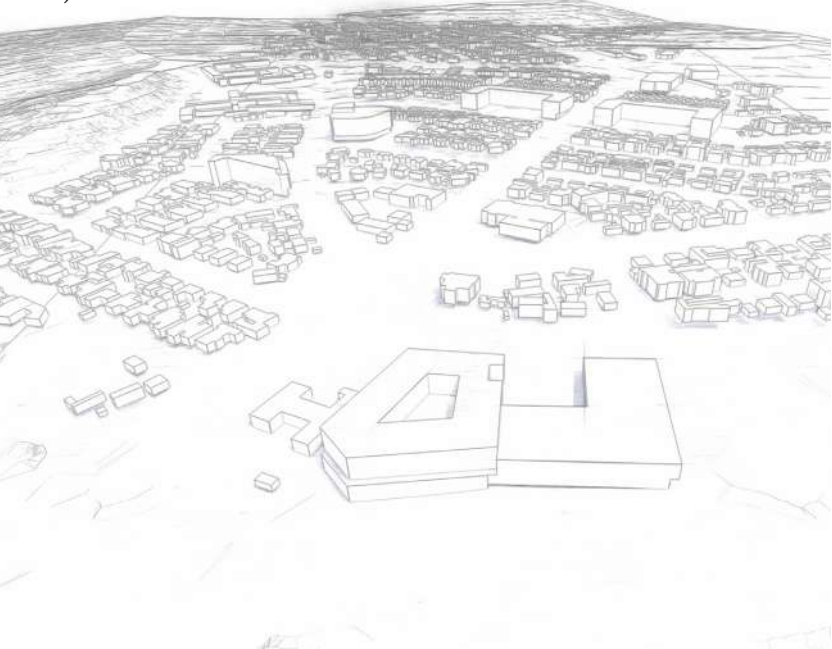


figure 75: Existing building development (Author, 2022)

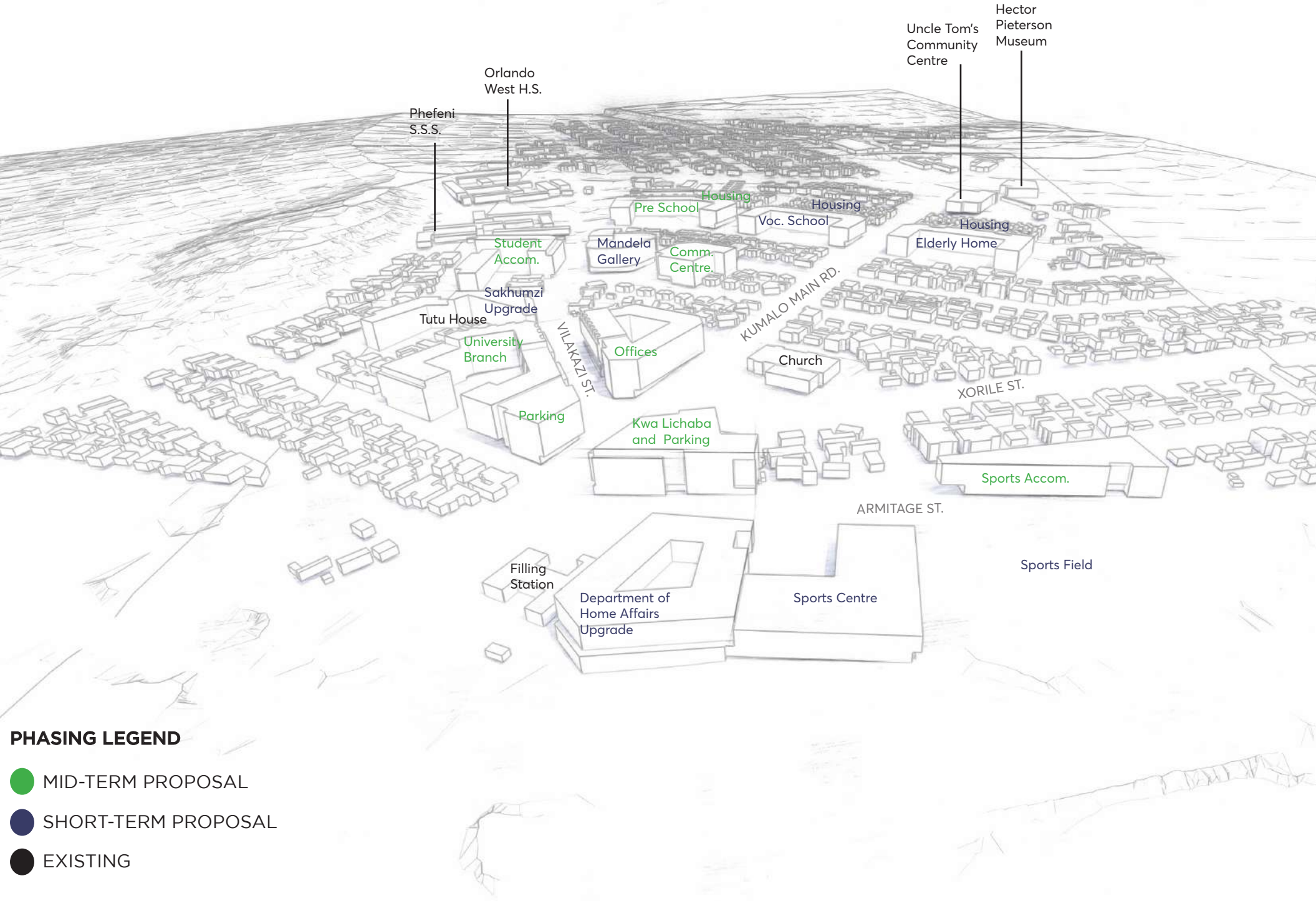


figure 75: Proposed mid-term building development. (Author, 2022)

VILAKAZI PRECINCT_LONG-TERM PROPOSAL

Illustrates the proposed interventions which would be required to realize a “true city district”. The general approach would aim at consolidating erfs and redeveloping the existing and proposed city blocks.

1. In “node 1” near the Hector Pieterse Museum: Additional double storey housing developments would be constructed with a central soft public space for the residents. Mixed use walk-up units would infill the space between “node 1” and “node 2”.
2. In “node 2” it is assumed that the proposal would have attracted a lot of investment and people, offering opportunities for a hotel, establishing the Mandela Square with more high density infill.
3. In “node 3” with the rapid development of the area a transport interchange would be developed to contribute to the public transport. The parking and transport interchange urban edges would accommodate informal trading stalls. The proposal illustrates a complete urban plan which is the desired end result which is walkable, inclusive, sustainable and memorable city district.

Similar to the development of Hatfield the building densification process will require a lot of negotiation with the residents and property owners. The proposed design aims to achieve a planned densification rather than the current which is occurring informally. This would elevate the spatial inequalities and create a better spatial and socio-economic environment for all the stakeholders that are involved in the development of this community.



figure 76: Proposed long-term site plan. (Author, 2022)

VILAKAZI PRECINCT_LONG-TERM PROPOSAL

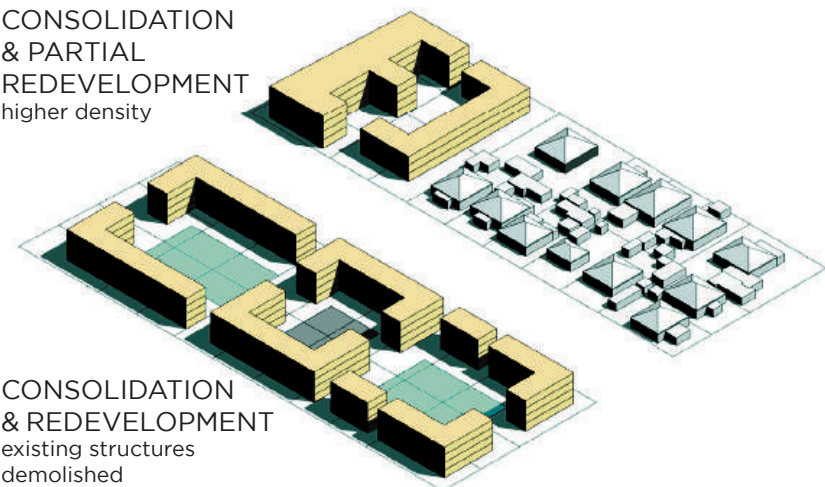


figure 77: Proposed long-term building density development. (JDA,



figure 78: Existing site plan keyplan. (Author, 2022)



figure 79: Proposed site plan 3D render. (Author, 2022)

DESIGN PROPOSAL_VILAKAZI STREET ENTRANCE

MIXED USE CONTROLS ON WOONERF_

Description

Mixed use with restaurants, gymnasium, and informal trading.

Height

3-5 floors

Setbacks

3m at base levels
5m at upper levels

Entrances

Pedestrian entrance shall be provided facing the woonerf to restaurants and/or upper floors

Vehicular entrances into property shall occur on other roads

No vehicular entrance off woonerf

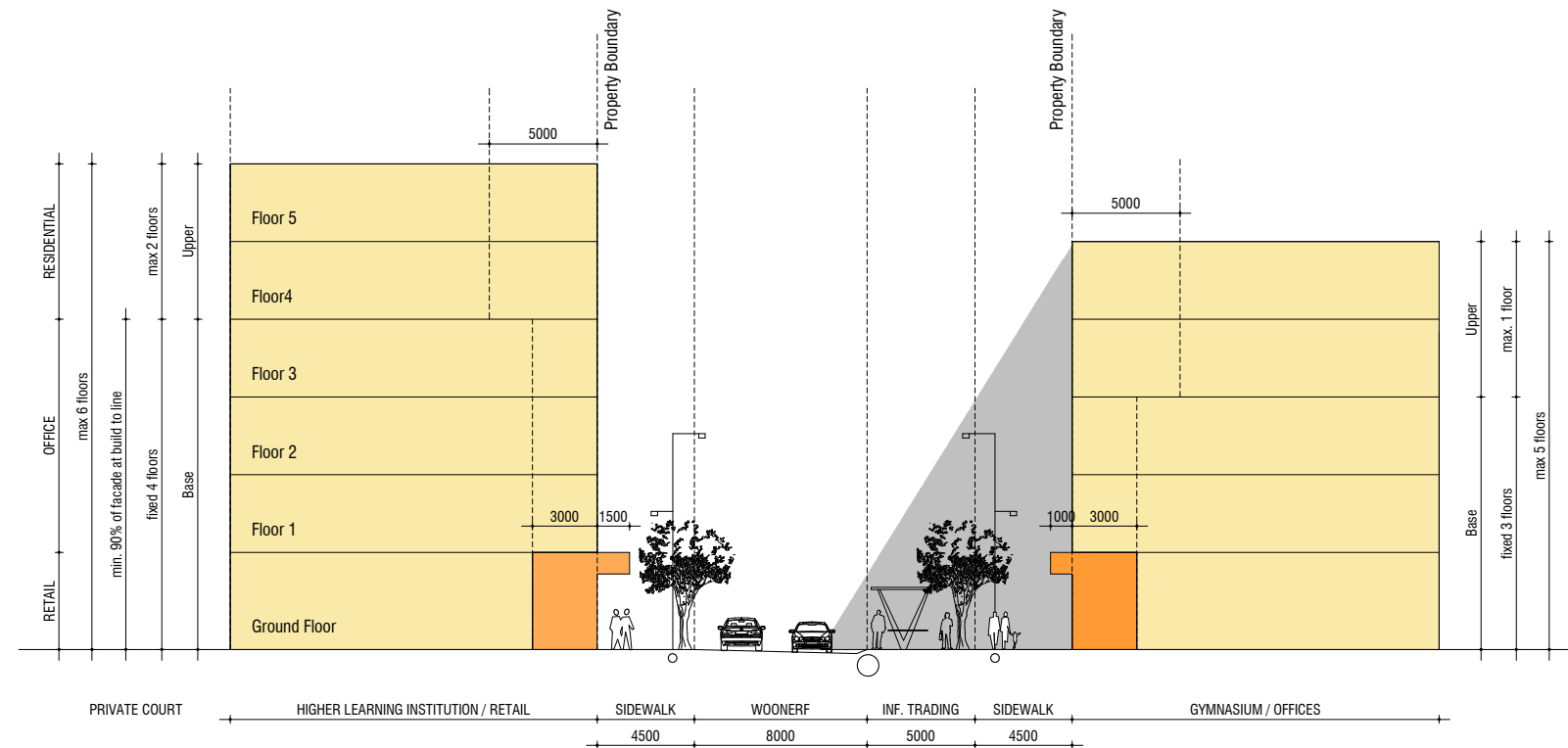
Glazing
A minimum of 70% of all restaurant facades shall have clear glazed openings

Parking

Parking structures are recommended
Woonerf parking also permitted

Interface

Planter boxes, trees and pedestrian shelters shall be provided in front of buildings
No solid walling is permitted facing the woonerf



(Author, 2022)

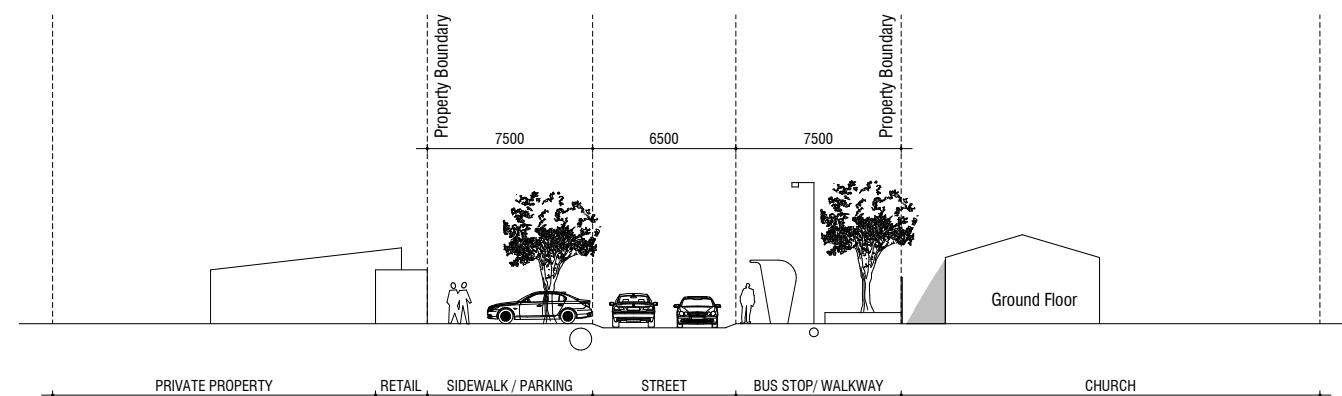


figure 81: Proposed woonerf entrance section plan. (Author, 2022)

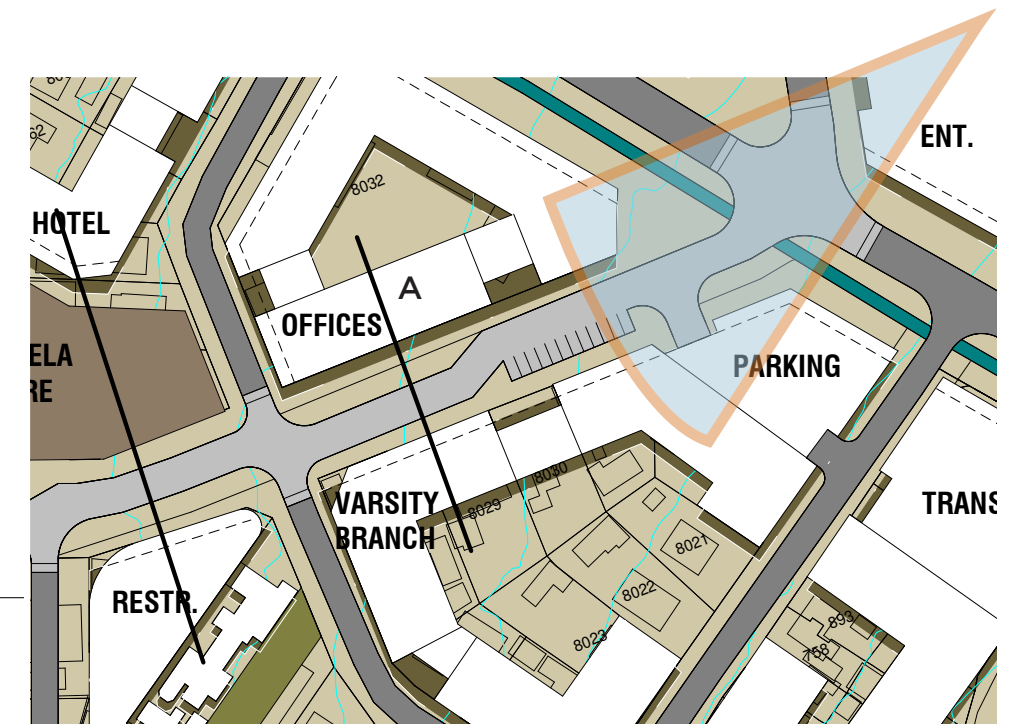


figure 82: Proposed entrance section-view plan. (Author, 2022)

DESIGN PROPOSAL_VILAKAZI STREET ENTRANCE

PEDESTRIAN ORIENTATED DESIGN_

The framework places a strong emphasis on pedestrian-oriented design (POD) in recognition of the fact that few local residents own private vehicles. POD results in a precise characterization of road hierarchies that distinguishes between pedestrian walkways, neighbourhood roads, automobile collector roads, and public transit routes.

Block sizes have been lowered to make neighbourhoods that are more pedestrian-friendly. The winding woonerf roadway and numerous turns tend to slow down car movement and provide plenty of opportunities for pedestrian crossings. Additionally, street corners are meant to serve as gathering places, as locations for small businesses, and as a canvas for creative architecture.



figure 83: Existing vilakazi street entrance. (Author, 2022)



figure 84: Proposed vilakazi street entrance. (Author, 2022)

DESIGN PROPOSAL_PROPOSED SAKHUMZI EDGE

MIXED USE CONTROLS ON OPEN SPACES_

Description

Hard and green open spaces contribute to the natural environment within the precincts; they provide views from surrounding properties; and they provide a place for children to play. Therefore, buildings need to create positive, active edges onto these boundaries

Parking and Access

Each property shall provide a pedestrian access directly into the public open space
Outdoor parking areas may extend to a maximum of 50% of the length of any given boundary or open spaces

Interface

All amenities shall allow a high level of passive surveillance over open space
All residential buildings shall be designed with living spaces overlooking open spaces.
Backyards with service areas will not be permitted on these boundaries

Promenades

All residential properties that face a green open space in a southerly direction, shall be provided with a public promenade street sitting in between the property and the open space. This is to provide a level of activity in the street, on the south, less sunny sides of the building
Only properties that face onto a open space in northerly directions shall be permitted to sit directly adjacent to the space.

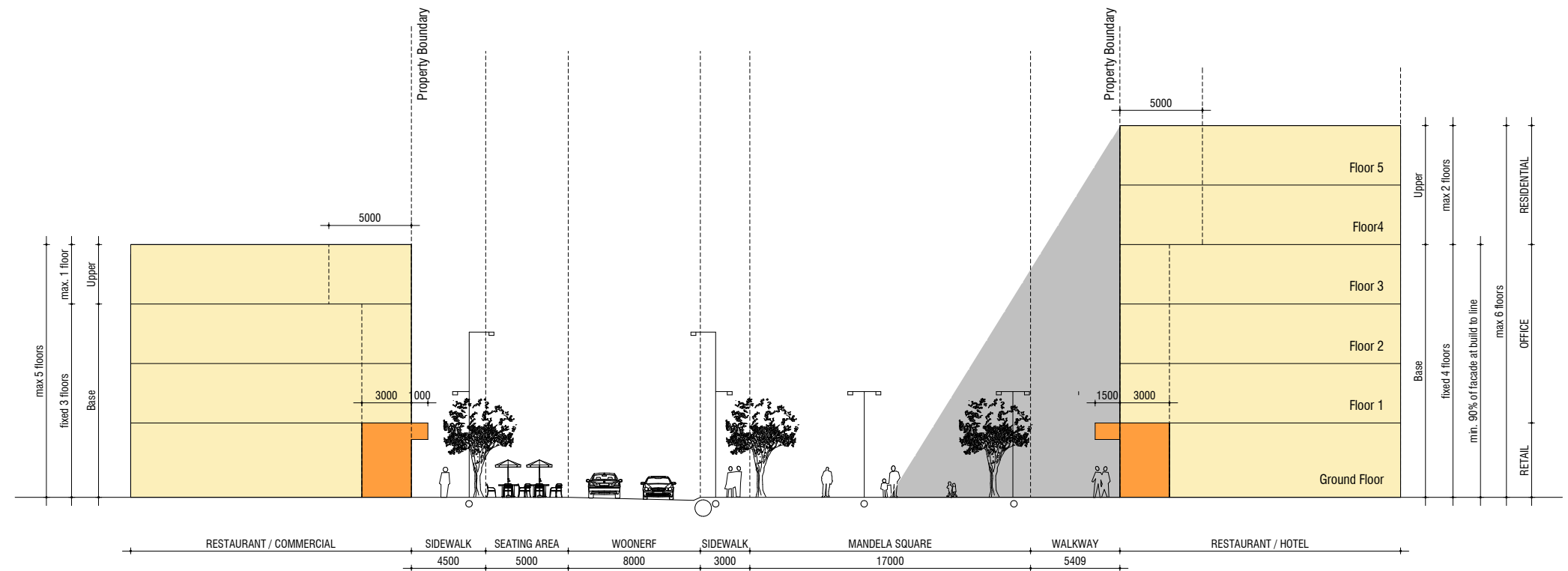


figure 85: Proposed Sakhumzi edge section. (Author, 2022)

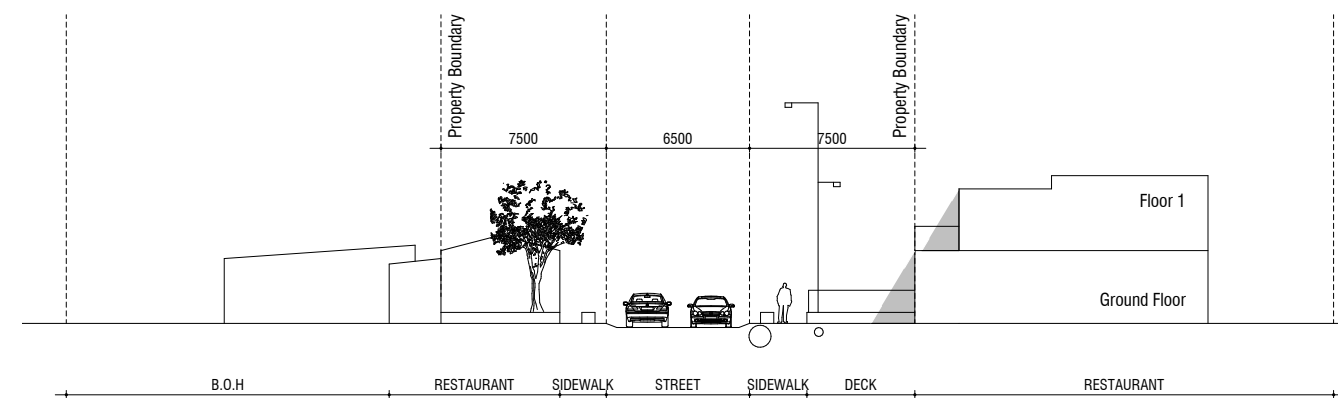


figure 86: Existing Sakhumzi edge section. (Author, 2022)

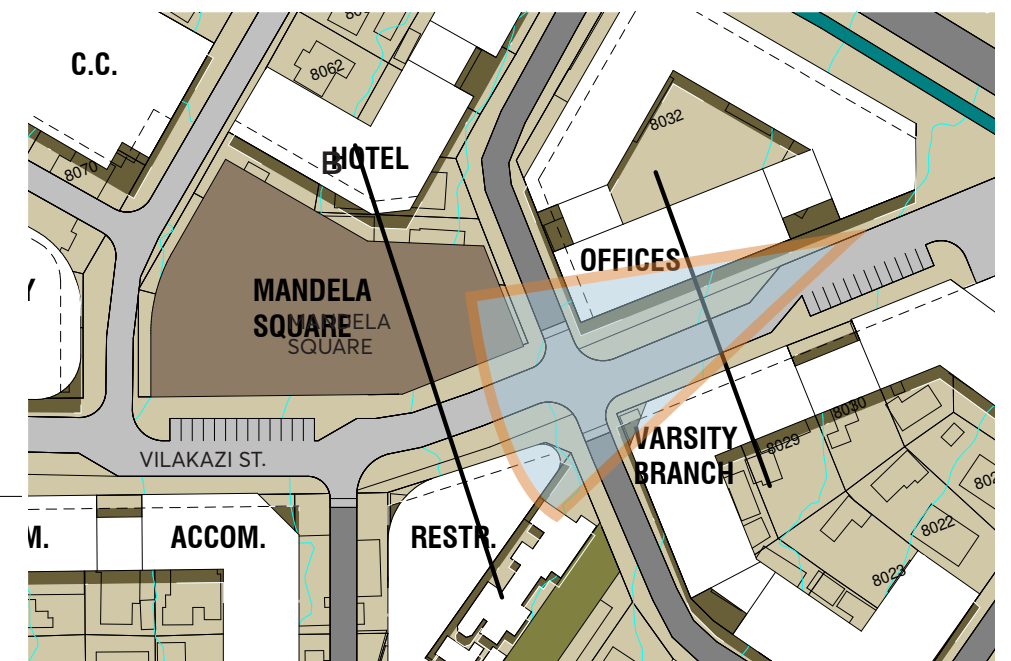


figure 87: Proposed Sakhumzi edge section-view plan. (Author, 2022)

EDGE CONDITION STRUCTURE_PROPOSED SAKHUMZI EDGE

COURT EDGES_

A positive, well defined public realm has the following characteristics:

- a) Strong, interactive edges;
- b) Active interface;
- c) Continuity of the built fabric;
- d) Envisaging the streets, green areas and hard spaces as public space;
- e) Landscaping and trees as spatial design elements; and
- f) Clear structure and hierarchy through the control of scale and use.

Desmond Tutu's House is located behind the Sakhumzi restaurant. The design proposal aims to respect the existing building by not making any additions or alterations.



figure 88: Existing Sakhumzi edge. (Author, 2022)



figure 89: Proposed Sakhumzi edge upgrade. (Author, 2022)

DESIGN PROPOSAL_PROPOSED ART GALLERY

MIXED USE CONTROLS ON WOONERF_

Description

Mixed use with restaurants

Height

3-4 floors

Setbacks

3m at base levels

5m at upper levels

Entrances

Pedestrian entrance shall be provided facing the woonerf to restaurants and/or upper floors

Vehicular entrances into property shall occur on other roads

No vehicular entrance off woonerf

Glazing

A minimum of 70% of all restaurant facades shall have clear glazed openings

Parking

Parking structures are recommended
Woonerf parking also permitted

Interface

Planter boxes, trees and pedestrian shelters shall be provided in front of buildings

No solid walling is permitted facing the woonerf

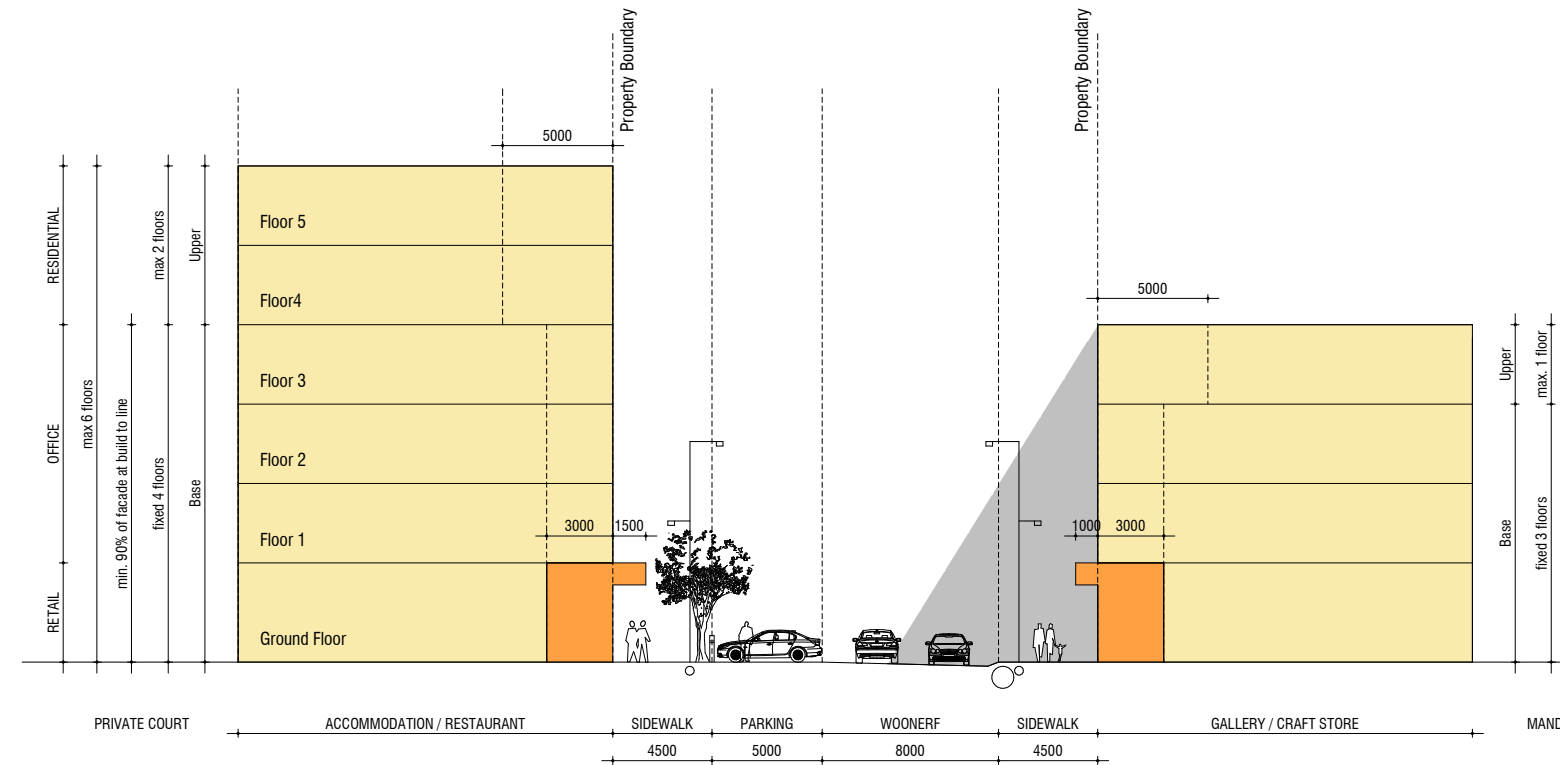


figure 90: Proposed gallery edge section. (Author, 2022)

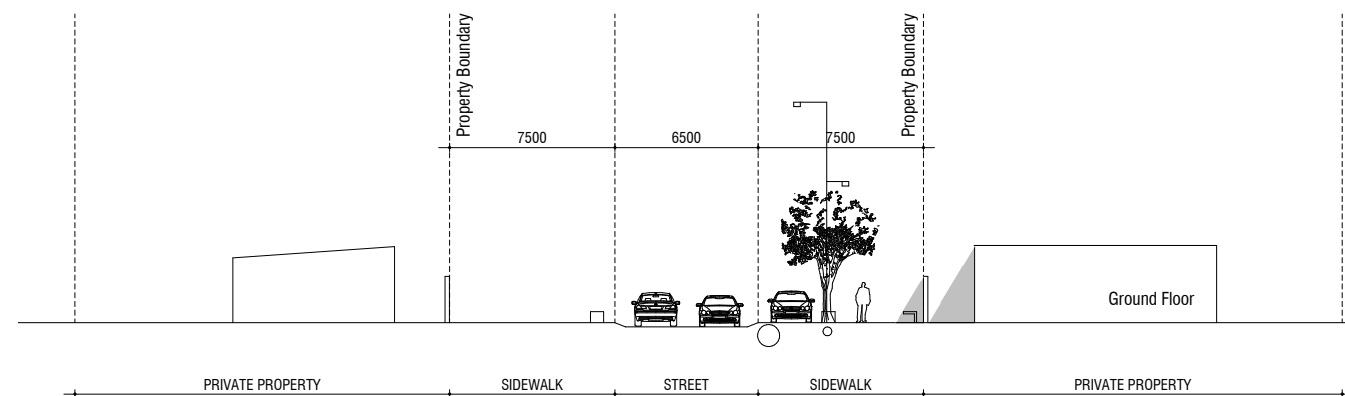


figure 91: Existing Mandela museum edge section. (Author, 2022)

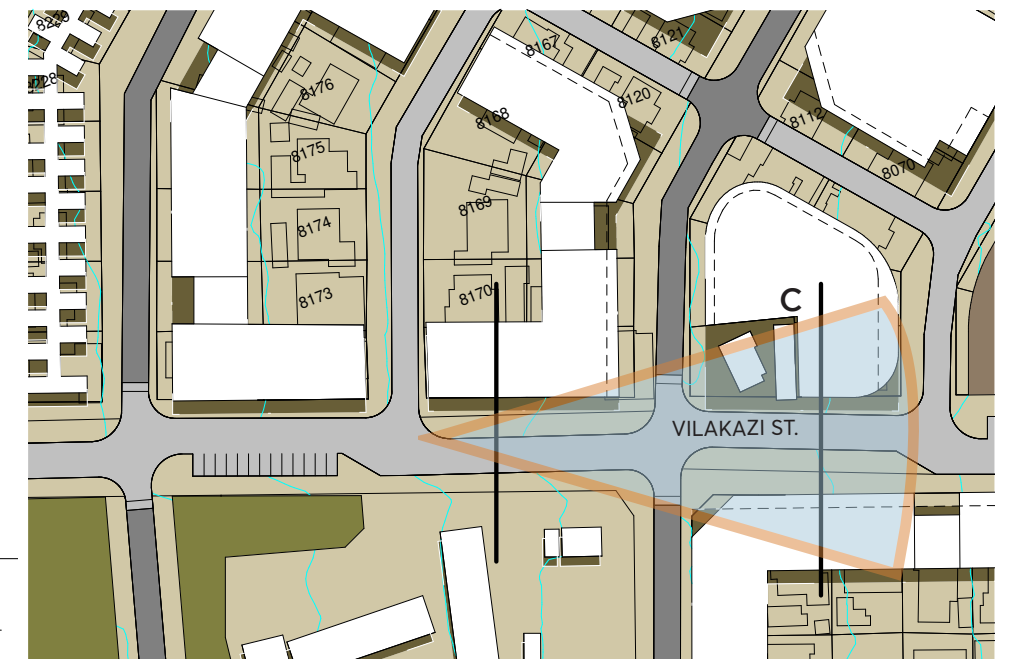


figure 92: Proposed museum/gallery edge section-view plan. (Author, 2022)

DESIGN PROPOSAL_ PROPOSED MANDELA ART GALLERY

HERITAGE_

A positive, well defined public realm has the following characteristics:

- a) Strong, interactive edges;
- b) Active interface;
- c) Continuity of the built fabric;
- d) Envisaging the streets, green areas and hard spaces as public space;
- e) Landscaping and trees as spatial design elements; and
- f) Clear structure and hierarchy through the control of scale and use.

The proposed Mandela Art Gallery aims to be an extension of the existing Mandela House Museum by celebrating local artists and artisans. The soffit of the building is proposed to be a digital screen that would depict educational films about the political history of South Africa and Nelson Mandela. The proposed heritage approach aims at conserving the existing building and celebrating Mandelas's influence through a medium density urban building.



figure 93: Existing vilakazi street intersection. (Author, 2022)



figure 94: Proposed vilakazi street gallery. (Author, 2022)

DESIGN PROPOSAL_PROPOSED SCHOOL EDGE

RESIDENTIAL CONTROLS ON WOONERF_

Description
High Density Residential

Height
3 floors
4 floors at major intersections

Setbacks
3m at base levels
5m at upper levels

Entrances
Ground floor units to have front gardens, front doors and pedestrian gates. Vehicular entrances into propoerties not permitted onto arterials

Parking
Private courtyard parking recommended

Interface
Residential units set back from busy vehicle orientated street
Front gardens act as visual and noise buffers.

INTERNAL STREETS_

These minor roads (with a 12m road) form the bulk of the internal roads of the development. Road reserves are to vary based on landuses, bulk and building heights, and are to vary from 16 to 10m.

These streets are to be designed when further work is done on each of the individual nodes

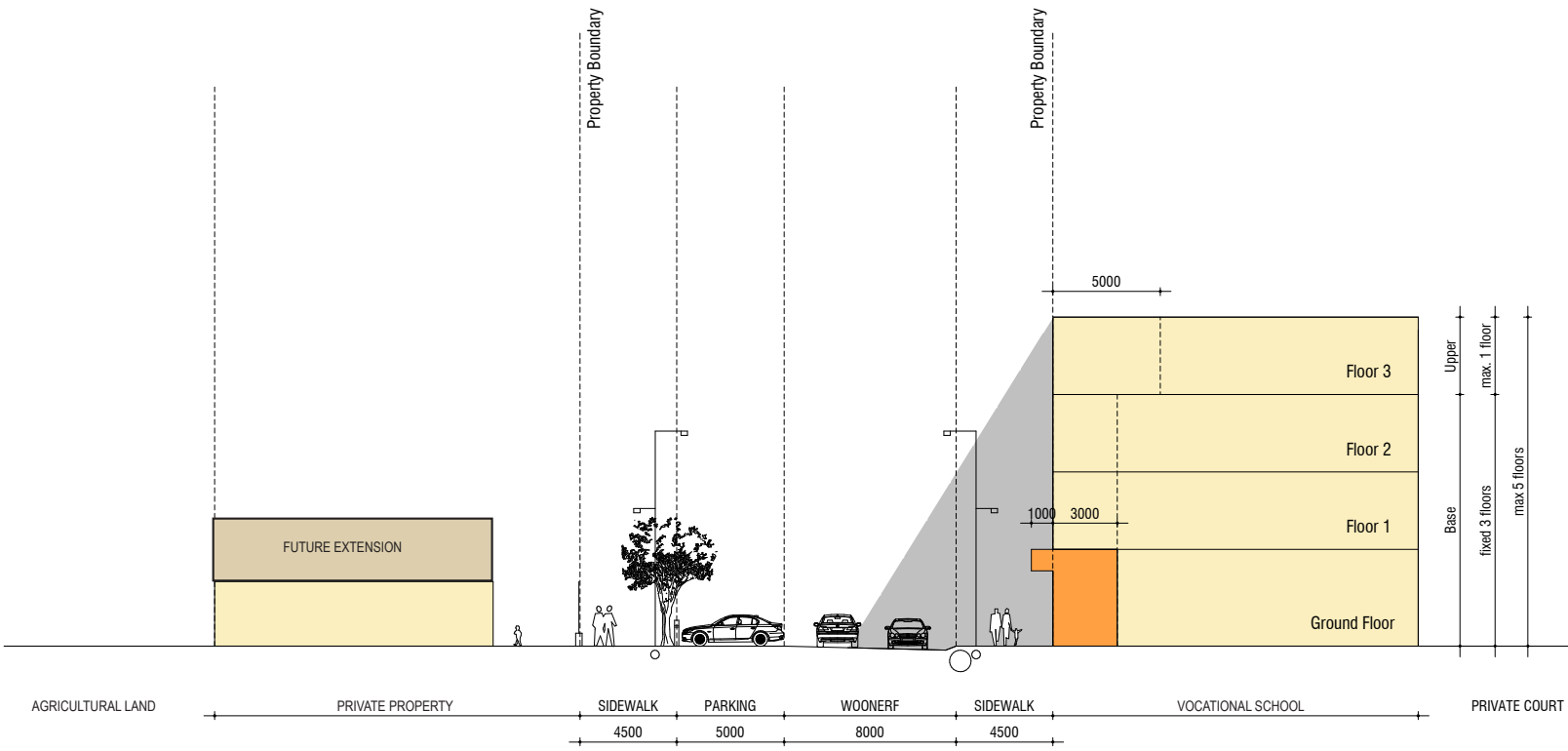


figure 95: Proposed agrihood section. (Author, 2022)

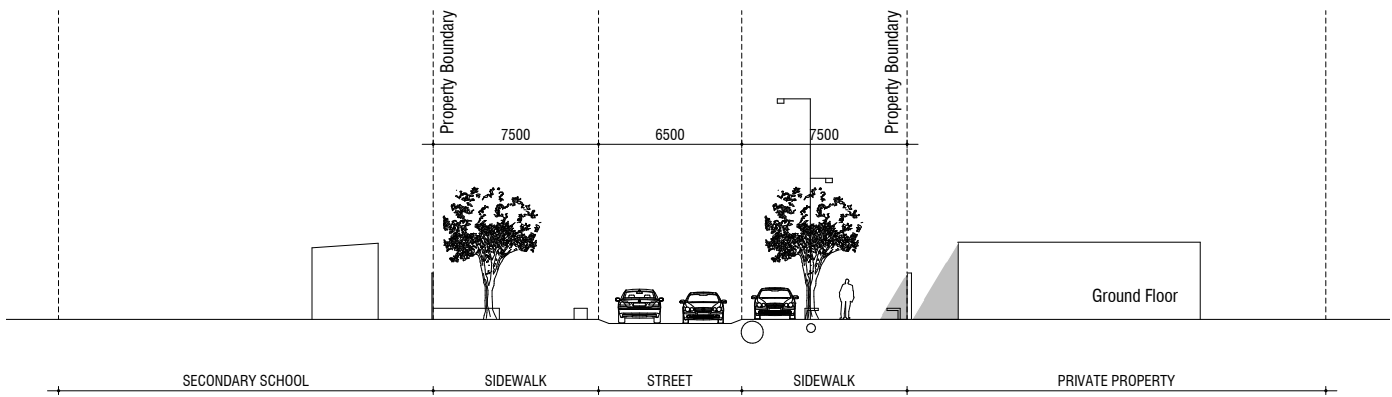


figure 96: Existing residential edge section. (Author, 2022)

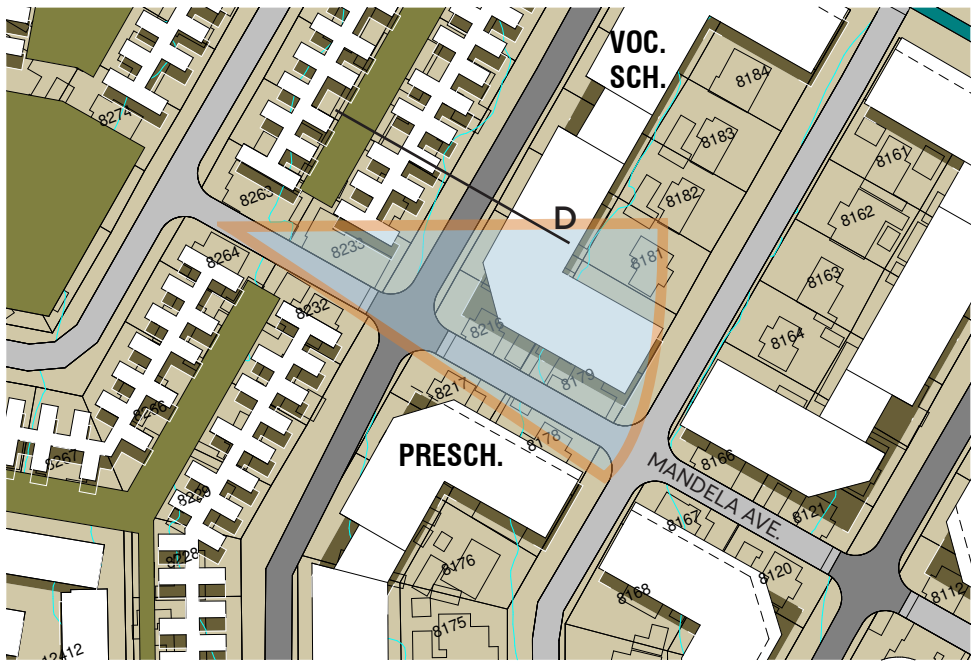


figure 97: Proposed agrihood section-view plan. (Author, 2022)

EDGE CONDITION STRUCTURE_PROPOSED SCHOOL EDGE



figure 98: Proposed agricultural neighbourhood. (Pienaar, 2018)



figure 99: Existing vilakazi agrihood. (Author, 2022)



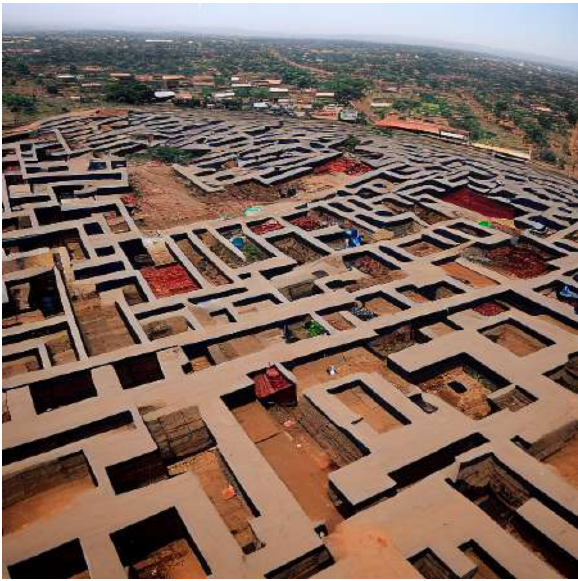
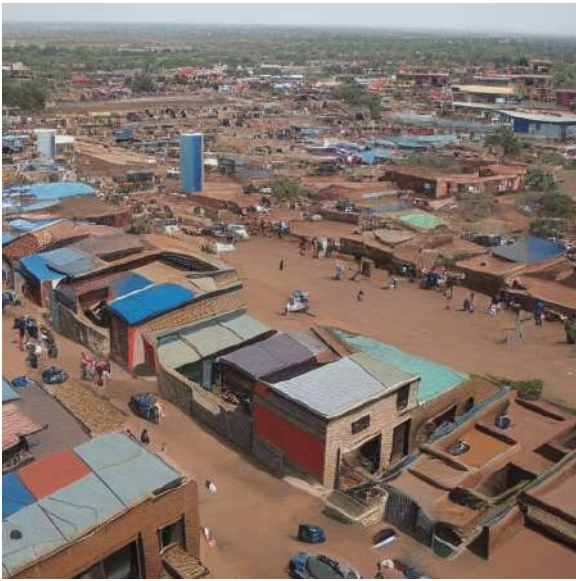
figure 100: Proposed vilakazi street agrihood. (Author, 2022)

ARTIFICIAL INTELLIGENCE_PROPOSED DEVELOPMENT

The images depicted in figure ... were generated on an online artificial intelligence (AI) website. The AI requires descriptive keywords, theme and place to produce appropriate results. Sentence compositions included words such as “Soweto redevelopment”, “township regeneration”, “Soweto densification”, “township morphology development”, “future African city” etc.



URBAN FORM



URBAN STRUCTURE



URBAN MEMORY



DEVELOPMENT STRUCTURE_PROPOSED IDENTITY_ URBAN SIGNAGE/BRANDING

The proposed urban signage uses “African” print as a unifying graphic language. Similar to the composition o the South Arican flag, the various colours signify the different races, ethnicities, and other differences. The precinct aims to celebrate Cultural Heritage, Integration, Social Exchange and Political History.



figure 102: Focus principles (Author, 2022)



figure 103: South African Flag

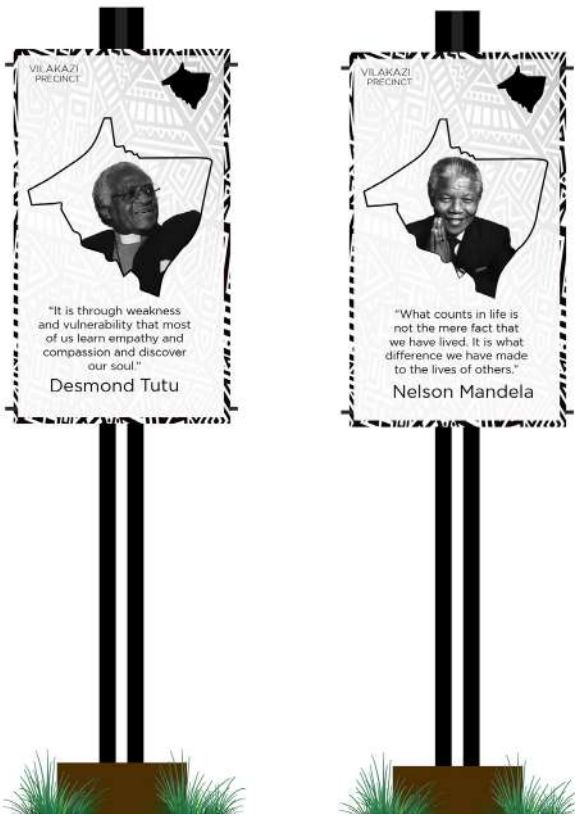
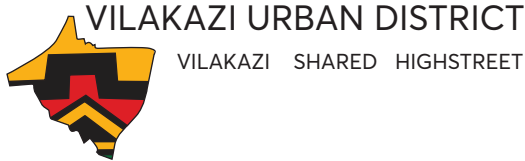
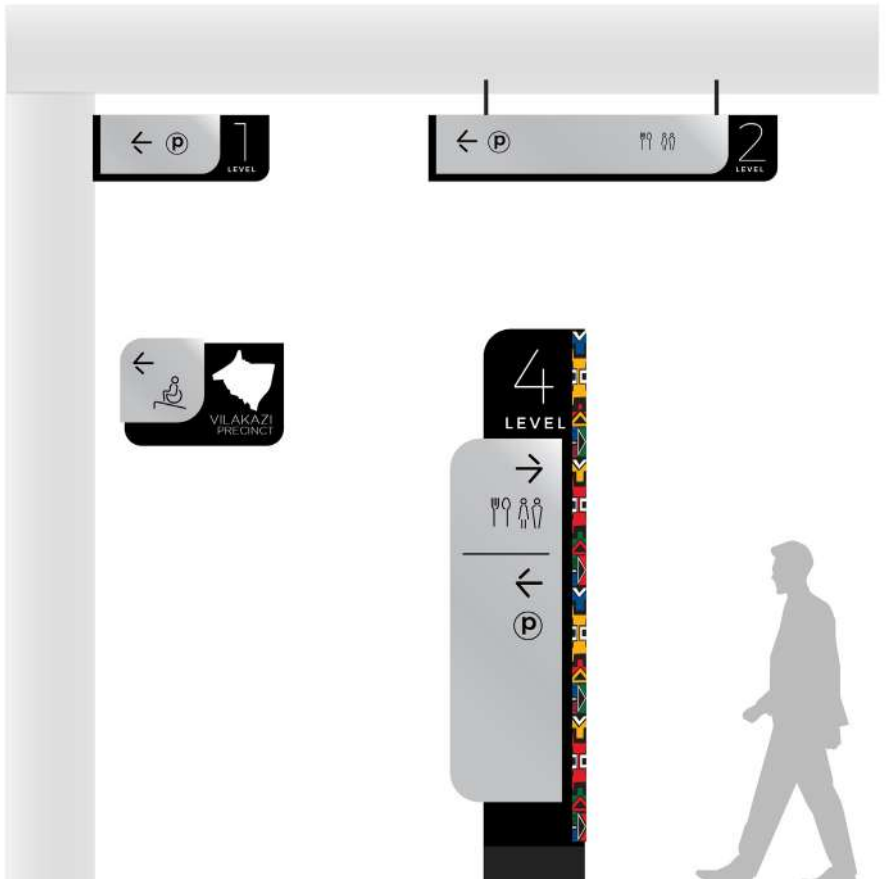


figure 104: Urban signage (Author, 2022)



DESIGN PROPOSAL_VIDEO



Aerial view



View from Klipspruit Valley Rd.



Vilakazi Precinct Entrance



Discover Vilakazi Precinct signage



Informal trading on Kumalo Main Rd.



Vilakazi woonerf street entrance



University branch, offices and street art



Gym and informal trading edge



Sakhumzi restaurant upgrade



“Democratic” Mandela Square



Mandela square outdoor cinema



Mandela square soft park



Mandela gallery and student acc.



Student accommodation bicycle hub



Existing Nelson Mandela Museum



Nelson Mandela museum video screen



Agrihood housing and vocational school



Gallery billboard and rooftop



Mandela square evening



Vilakazi precinct urban district upgrade

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20 November 2023

Dear Batatu Qwabe (574809)

This letter confirms that your clearance/waiver application has been approved. Your protocol/clearance number is: W136/10/2023

Yours sincerely

Lerato Nkosi

Lerato Nkosi