

INSERTION

THE REVITALIZATION OF A SMALL TOWN THROUGH THE INTRODUCTION OF A NEW LANDUSE
[fusing education and living]

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INSERTION

the revitalization of a small town through the introduction of a catalyst intervention ***[fusing education and living]***

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Declaration

I declare that this research report is my own unaided work. It is being submitted to the degree of:
Master of Urban Design to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other university.



(Signature of candidate)
26 day of October year 2018

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Dedication

To **Palesa Mnyaka**, my wife, for walking all this way with me.

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Glossary of terms

Apartheid

Merriam-webster.com
Racial seggregation; specifically: a former policy of segregation and political and economic discrimination against non-European groups in the Republic of South Africa.

Connectivity

Merriam-webster.com
the quality, state, or capability of being connective or connected.

Infill

Centre for urban policy research, 2006
“the development of new housing or other buildings on scattered vacant lots in a built-up area.

Placemaking

www.pps.org
“Placemaking refers to a collaborative process by which we can shape our public realm in order to maximize shared value. more than just promoting better urban design., Placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution.

Resilience

Divoudi. S, 2012
magnitude of disturbance that a system can endure before it changes its structure.

Sustainability

Merriam-webster.com
1 :capable of being sustained
2 a :of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged sustainable techniques sustainable agriculture
b :of or relating to a lifestyle involving the use of sustainable methods sustainable society

Town

Atkinsom. D, 2008
defined by diversity of its functions, by factors such as site and situation, geographic sie, function and social and cultural environment.

Fransen, 2006
term that describes all urban setlements.

Wessels, 2012
The physical, technical and social expression of the dominant, though changing, cultural and economic processes of its populations over time.

Urban design

urbandesign.org
The art of creating and shaping cities.

Abstract

INSERTION: THE REVITALIZATION OF A SMALL TOWN THROUGH THE INTRODUCTION OF A NEW LAND USE [FUSING EDUCATION AND LIVING]

The formation of small towns in South Africa was a result of the spread of colonialism. Indeed, these towns were conceived for a minority of settlers and set up in the image of British or English towns. Their logic has always been that they would be service towns and most of them have remained as such servicing the rural hinterland. The advent of democracy has allowed for fluid migration patterns creating linkages between urban and rural areas opening these towns to a new demographic.

The prompt for endeavoring in such research stems from personal experience and noticing how small towns in the Eastern Cape are deteriorating and losing their strength as service centers which offer jobs, facilities, amenities and focal points from which developments spread to the greater region. The purpose of this research is to conceive a strategy to revitalize the town of Port St Johns by capitalizing on the intense flow of people, goods, capital (both public and private), services and information taking place between urban and rural areas (Ministry of Cooperative Government and Traditional Affairs, 2014).

The town of Port St Johns finds itself in the periphery of the Eastern Cape Province as an 'end of the road' town. It services over 130 villages most of which are rife with poverty. Its main economic drivers are the tourism and farming sector with tourism being more dominant. As a result of this, it experiences huge population influxes at different periods of the year from people coming in to buy groceries at the end of the month to holiday makers filling up the town and its beaches during the end-of-the-year holiday period. This presents an opportunity to capitalize on these fluctuations but they are often met with poor infrastructure, particularly that of education and accommodation. Although the tourism sector is the major economy of the town it is undeniably stagnant, a situation further exacerbated by weak partnerships between local government and non-governmental institutions.

Efforts to revitalize the town must then begin at the regional scale by linking strategic and sectoral initiatives between functional geographic areas (Port St Johns Master Plan). Value chains must be developed between various economic sectors. Research on the demographic makeup of the area shows it to have a large young and unskilled population. Up-skilling the large youth resource initially in the sectors that are strongest in the region must be rigorous. An institution of higher learning dedicated to farming, tourism and hospitality could help aid this as it would anchor the population throughout the year and residences developed could then be used to accommodate holiday makers during the holiday period when a majority of tourists visit the area.



Figure 1. by Author , 2016

CHAPTER

01

Research Structure

Introduction

Many small towns and their communities find themselves on the "losing end of the globalization and economic transition, almost to the point of despondency" (Lembe & Morgan, 2008); to the point that "the economic significance of small and medium sized towns is a controversial question" (Atkinson, 2009). This places small towns on the back-foot of development as focus is mostly directed towards the metropolitan areas due to their sheer size and demographic scale which distinguishes them as hubs for growth. As a result in South Africa, for the most part, small towns have been facing a decline in terms of social, economic and spatial development.

Atkinson, 2008, denotes the fluctuating nature of attention to small town development; that the 1960s brought a positive developmental image with a large focus on large-scale infrastructural projects. Soon enough, in the 1970s there was a complete disinterest, thereafter a renewed interest in the 1980s. This fluctuation is tethered with the influence of the segregated approach prevailing in those eras. "The apartheid regime created a fragmented spatial structure based on racial divide, which is very difficult and costly to undo today" (Kienast, 2008).

The challenges faced by small towns today are thus deep-rooted and structural. Compounded to this issue is the fact that they vary greatly therefore blanket policies and "one size fits all" solutions would prove most ineffective. Many are distinguished by specific industries such as manufacturing, or agriculture but some are distinguished by such industries as mining or tourism and almost entirely depend on these industries. These towns were not built with the ability to bounce back should their specific industries fail or stagnate making them extremely vulnerable.

This is compounded by the fact that the large-scale infrastructural approach of the 1960s meant that all infrastructures were tailored solely for those industries.

Today, the new approach to small town revitalization is "to focus on developing local initiatives and resources for local development" (Atkinson, 2008). Because this approach looks locally it is important to ascertain what the intrinsic principles that are applicable spatially, economically and socially in the revitalization of small towns. To address this aim this paper will investigate what strategies of revitalization have been most reliable in rebuilding small town economies. Another important component to investigate is the role Urban Design can play in small town revitalization.

The strategies proposed in this research are about helping the town cultivate its own economy through innovative means, and making it ready should external investment come. The aim then is not for the town of Port St Johns to sit back and wait for a miracle but to build up its 'own capacity to bounce back from destruction or impending doom' what Davoudi calls "Resilience" (Davoudi, 2012, pg 301). What is sought is not to merely make broad suggestions on a way forward but to prompt practical actions in the right direction. This may mean rethinking current development approaches.

Thie first chapter of this research document begins by introducing the problem statement and the methodology by which the research will be carried out. Chapter two is an exploration of urban theory. It is important to note that theory on small towns and urban design does not exist therefore the approach taken by this research is such that the theory is spread thoughout the document. The theory available is mostly focused on cities therefore this research will glean those principles from city urban research that are appropriate for small towns.

Chapter three is a study of the current conditions of the town followed by a precedent study from which to draw inspiration for the different elements of the design intervention. Chapter five details the strategy for revitalization where an urban campus is introduced. The final chapter provides an implementation strategywhich demonstrates a detailed approach to how the insertion of an urban campus can be fulfilled.



Figure 2. *Main Road: Port St Johns post office, (by Author , 2016),*

This Research

The pursuit of endeavouring in small towns in South Africa is met with an extreme lack of a body of work in regards to urban design for small towns. This dissertation thereby serves to add to the body of work already lacking in the country. The result of this is that urban design research on small towns in South Africa must adapt apropriate policies, principles and theory mostly gathered from international research on small towns. Furthermore, most urban design theory is focused on cities but some overlapping principles can be gleaned.

Case studies (international and local) will be a useful tool to determine what other small towns have gotten right in order to achieve economic revitalization. Follow up questions are then asked: Would these be regarded as a benchmark for all small town revitalization? Would their strategies be applicable to all small towns equally? By understanding how and why certain strategies worked in various communities, allows the following important question to be asked; which, how, when and where can those strategies most applicable to the context of Port St Johns be implemented in the town?

It would be inappropriate in our country to try and create a singular model that is one-size-fits-all for small towns. The topic that one can address, focuses on a specific small town namely Port St Johns and concentrates on what is inherent in this small town that can be used to revitalize it from within, what the International Economic Development Council (IEDC) calls "economic Gardening" (Lembe& Morgan, 2009, pg 6).

This research is intended to identify where the cause of failure is, investigate what has maintained the current conditions and find out what other small communities have done to turn around their situation. This knowledge can be used to improve the status quo. New or alternative strategies can be adapted to deal with place-specific issues.

It is crucial to understand that the coastal town of Port St Johns is unique. This means that in order to enable better planning for revitalization programs and projects, the municipality will have to come up with tailor-made strategies. The Eastern Cape as a whole is regarded as a predominantly rural province and the Port St Johns municipality is no exception. Some attention must be given to the role and influence of the rural community. The impact of this on education in the area cannot be omitted from this study



Figure 3. *Main Road: Nurse walking with groceries (Author, 2016)*

The Issues

"Over time, communities go through changes that affect the industries, technologies and land use patterns that help form the foundation of their local economies" (United States Environmental Protection Agency (EPA, 2015, pg 1). These changes are often complex, and towns are found wanting when it comes to adapting to these changes.

These changes may not necessarily be negative but good changes which would otherwise be beneficial to the town's economy tend to overbear the town's capacity and facilities and thus "smaller communities often have a more difficult time making significant adjustments" (EPA, 2015, pg 1). In the South African context small towns are facing massive decline economically, socially and physically.

For the most part, Kienast, 2008, would argue, that these are the ramifications of apartheid spatial planning which created a "fragmented spatial structure based on racial divide." Many of these towns were created for "white" settlement and have proven fallible when faced with the challenge of regime change.

The advent of democracy has allowed rural inhabitants with whom these towns for the most part have a close acquaintance to flock closer to central business districts which previously were mostly "white" and had bettered services. Many newcomers from the rural hinterland cannot be accommodated due to the difficulty to reverse apartheid spatial divide, challenges with land use management and service delivery (Kienast, 2008).

Problem Statement

Port St Johns should be a town that provides its people a strong sense of unique identity, a haven for recline and opportunity to live, work, get education and prosper within the same town. It should be a town with vibrant, safe, comfortable spaces for both its many visitors and the local residents.

However, Port St Johns is rife with poverty with many of its residents living on grants. There is a lack of institutions for higher learning including high schools. This further exacerbates the status quo because it creates a young, well abled, unschooled and unskilled population with no opportunity to develop themselves. Those who can afford to do manage to pursue higher education elsewhere and thus contribute to the prosperity of that place instead of Port St Johns. If this persists they cycle is repeated, anti-social behavior follows among those who stay and the town faces decline to the point of despondency.

This creates a need for the development of an institution of higher learning which includes a high school and a finishing school for those who dropped out of school or left school early.

Objectives

Introduce an urban campus
- Use faculty building to infill Main Road to reinforce its civic function
- Use residential buildings to anchor and provide surveillance to the natural environment
- Reinforce natural resources
- Reinforce character of different street types
- Use landscaping to address flooding
- Practical use of educational capacity/facilities

Expected Findings

The town of Port St Johns is the administrative capital for its district municipality servicing 130 villages. This deteriorated town possesses the latent potential to become a beacon of vibrant urban life, offering plenty of room for recline for holiday makers, a place to retire, an efficient and accessible administrative capital with conducive urban space and opportunities for its residents.

Its location, functions and reputation provide inherent cues for an appropriate response to its revitalization. The very conditios that generate the need for an intervention provide the oppotunities for success.

Research Question

How can the introduction of a vocational learning institution, through urban design be used as a catalyst for revitalization in Port St Johns?

The following questions are provided as guidelines to fulfilling this aim:

1. How can Port St Johns through Urban Design be made ready for revitalization?

2. What set of urban design principles can be developed and applied that would ensure conducive urban space for revitalization?

3. What could a physical manifestation of these principles look like?

4. How can the seasonal nature of the town be used as a means to initiating a long-term strategy for revitalization?

5. How can the town be made ready to absorb the influx of people during peak season?

6. How can the town maintain the momentum from these periods for the rest of the year?

7. How can the town begin the process of empowering its residents to tap into this momentum?

8. How can the town ensure appropriate land use development fitting to a coastal town?

Methodology

The diagram below illustrates the inductive approach to conducting this research in that it begins by providing general theoretical research along with observable, site specific issues. From this a research question is produced from which the succeeding bulk of research will take a qualitative approach which will culminate in a site specific design intervention.

The nature of the research is a combination of exploratory and descriptive research; looking at well-defined urban design theories and their application on the site while providing additional information about the topic at hand.

In terms of data collection the qualitative methods to be follwed include:

Mapping: where the researcher will, through a desk top mapping exercise identify the site in its context as well as identify interesting elements of the site such as its urban structure, historical landmarks, built form topography etc. This will help the researcher understand both the site and its broader context.

Observation: following the mapping exercise it is incumbent for the researcher to physically visit the site to make observations.This will help the researcher assess the status quo and determine where the gaps are in terms of the processes and events that take place in the site. This process will be done more than once.

Archiving: where the researcher uses a process of documentation for the data from the mapping and observation exercises to help establish a body of knowledge which can be used as a point of reference for the duration of the study. This will help the researcher with formulating an appropriate design respose.

Precedents and case studies: where the researcher will go through a process of finding relevant examples, similar to the site which are successful in order to distil lessons that can be learned and used in the design intervention.

Description: the descriptive process allows the researcher to through the use of the latest accredited documents to find out factual information about the site.

The overall aim of this segment is to guide the design manifestation.

Applied research: where the researcher uses the acquired body of knowledge to guide the design manifestation in accordance with the site specific solution to the chosen research topic.

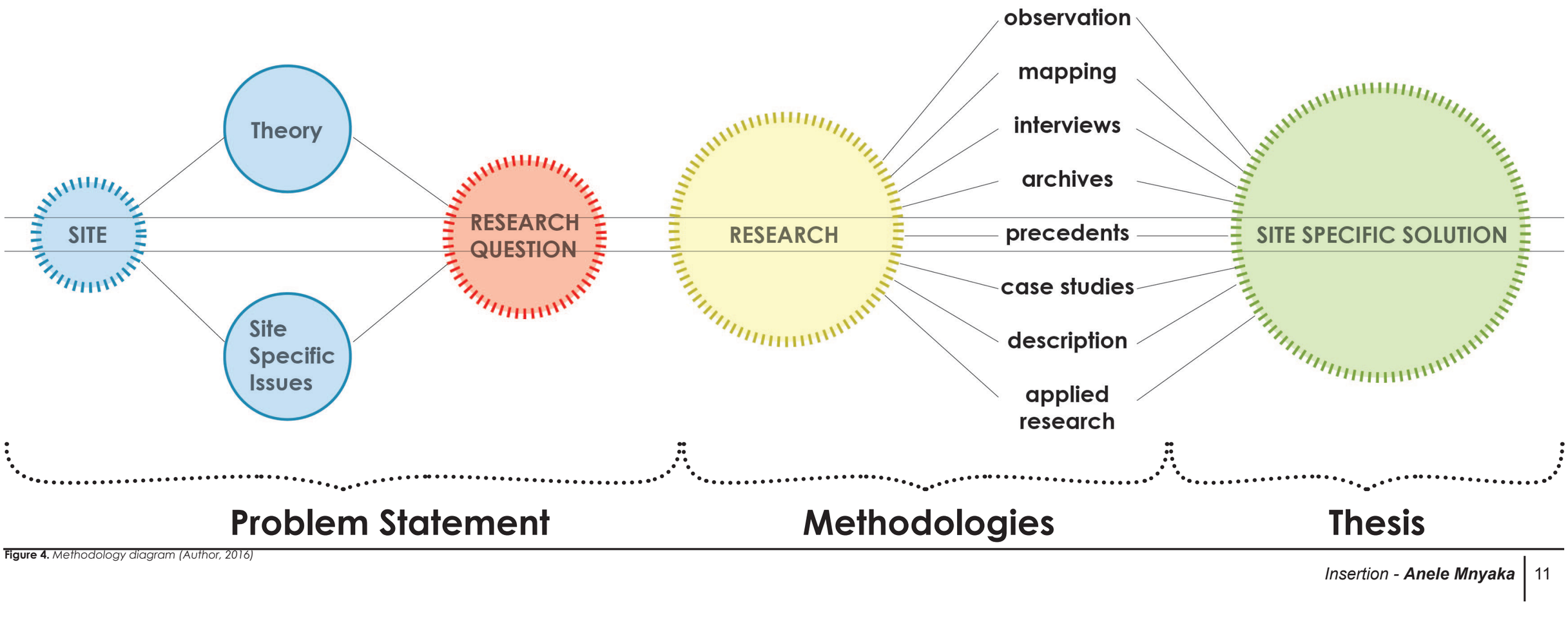
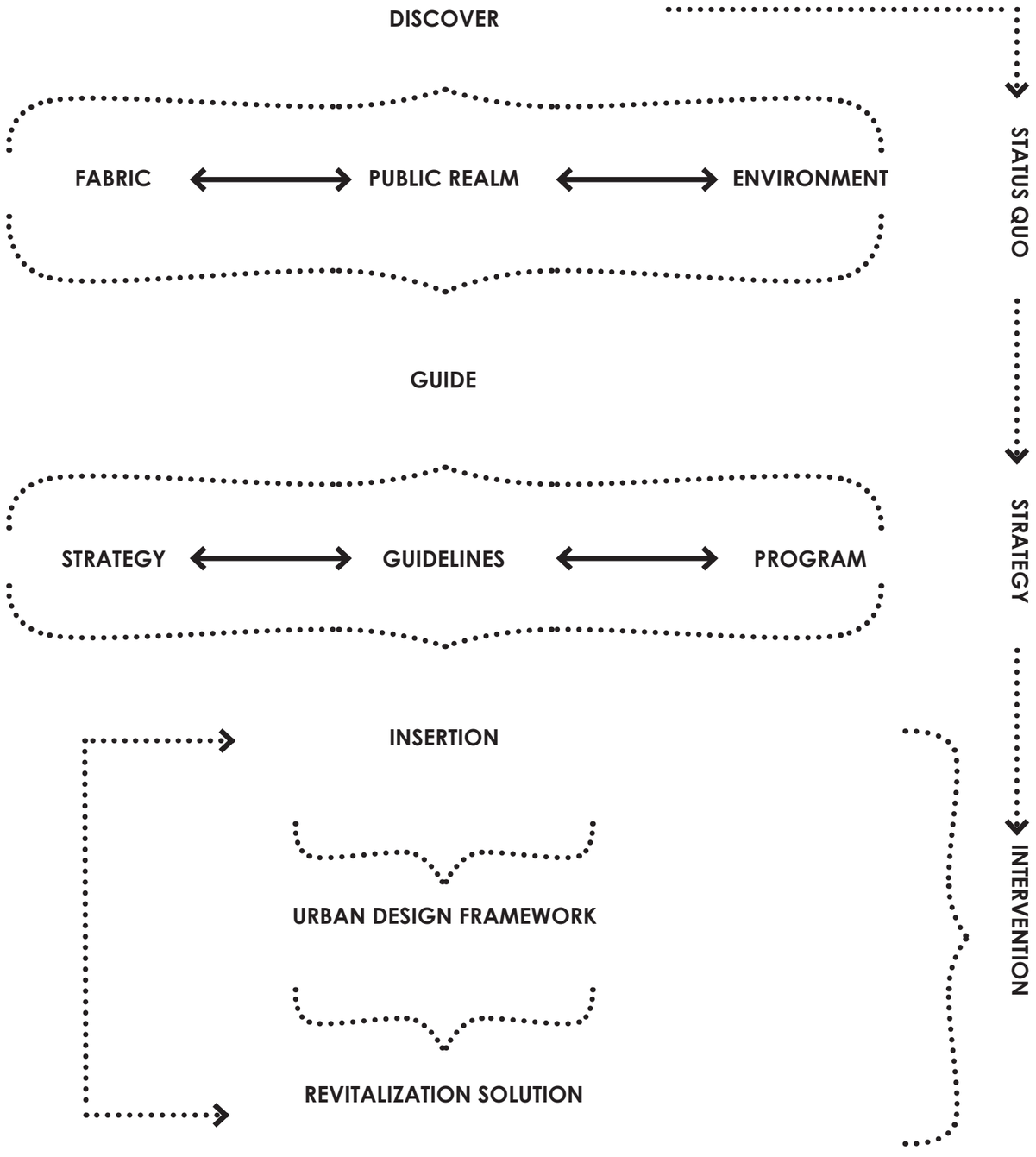


Figure 4. *Methodology diagram (Author, 2016)*

Strategic Diagram



The research strategy explores three spheres through which the town of Port St Johns can come to realize its revitalization:

DISCOVER
FABRIC- is about understanding the structural makeup and cohesion of the town, **PUBLIC REALM**- understanding how public space is used and discovering who the competitors for public space are and what challenges they create or face, **ENVIRONMENT**- is about discovering local natural assets and their potential

GUIDE
STRATEGY- looking at how latent potential can be realized at a regional and local scale, **GUIDELINES**- distilling the underpinning principles that should guide the process implementing the streategy, **PROGRAMME**- a list of functions that form part of an intervention

The diagram to the left is a guide for the process to be undertaken. The investigation begins with a desktop study of research and mapping which gives insight on the site at various scales. These scales include metropolitan, neighbourhood and precinct. Understanding the site at these various scales along with appropriate theories provides a way to generate an urban design response that resonates at all levels.

It is important to note that this paper attempts to be as contextual as possible drawing issues from challenges identified in official documents such as the Integrated Development Plan (IDP) and Spatial Development Framework (SDF). In light of this the design solution is one of many revitalization scenarios that could result from the specific solution proposed in this paper.

Figure 5. *Strategy diagram (Author, 2016)*

Chapter Summary

Small towns in the Eastern Cape are faced with a constant burden of poverty, declining economies, populations, lack of skills and skills development compounded by lack of infrastructure and service delivery.

With all these challenges they are still expected to maintain their role as primary service providers for surrounding villages. The population of surrounding villages alone overbears whatever services are present which creates the problem of constant need for maintenance. Lack of funds from their municipalities along with faliure to find sustainable means on intervention for these problems.

Port St Johns is not exception to these challenges. With many tourism assets, a large unemployed youth demographic and a seasonal population influx the town is pregnant with latent potential. This report therefore sets out to use these inherent qualities of the town as the springboard for revitalization of the town.

The next chapter undertakes a spatial analysis of the town of Port St Johns. It sets the scope of the research, investigating the spatial qualities and interesting elements of the site through observation and mapping.



Figure 6. *First Beach (Author, 2016)*

CHAPTER

02

Theory & Case Studies

Small Towns & Revitalization

What is a small town?

South Africa has many urban settlements which can fit any definition of what a small town is but the lines are often blurred by their varying nature and relation to the rural hinterland. Thus a definition of what is meant by a small town is hard to pin down (Wessels, 2012).

Different people have different definitions of what a town is. The word 'town' is usually used as a generic term to describe all urban settlements (Fransen, 2006). This is the definition that this paper accepts and hence forth means when it is referring to a town. Therefore a town is an urban settlement smaller than a city and is usually characterized by services such as banks, churches, schools etc.

Wessels (2012) defines a town as the physical, technical and social expression of the dominant, though changing, cultural and economic processes of its population over time. Atkinson, D. (2008) defines a South African town 'by function, economic performance and historic economic legacy.' Function here referring to diversified activity beyond "non-agricultural but including administrative, industrial, commercial and cultural" (Atkinson, 2008).

Therefore according to Atkinson a small town in South Africa is not merely defined and limited to population size and economic performance, diversity of function but by factors such as 'site and situation, geographic size, function and social and cultural environment' (Atkinson, 2008). This definition encompasses both the physical and non-physical elements that define an urban centre.

Also, since many small towns are said to have a weak or declining economic base (Todes et al, 2010), they are usually characterized by a dominant industry and thus when that particular industry is not doing so well the whole community feels the plunge. For example tourism towns are usually better off because "they bring in new capital and spending power" (Atkinson, 2008). Wessels was quite blunt in stating "towns and cities are not dormant; they change, and sometimes they even die" (2008). This is a sentiment that Atkinson attests to when she states that the larger commercial towns have a comparative advantage due to a sufficient level of diverse activities (Atkinson, 2008).

What is urban revitalization?

Revitalization

- To give new life, energy, activity, or success to something (Dictionary. Cambridge.org).
- To give life to or to give new vitality or vigour to (dictionary.com)

Wessels, 2008, describes a town "as a system" and Garcia et al elaborates on the different aspects that this system consists, such as social, economic, physical or environmental, health, historical and cultural. These all function simultaneously to create the system called a "town."

A working definition for this paper must then encompass all the aspects that make up the system. But similar to the attempt to define what a small town is, a singular definition for urban revitalization is elusive. What particularly makes it difficult to pin down is the fact that it goes by many names including, "regeneration, renewal, redevelopment, rehabilitation, conservation, restoration, revitalization, reconstruction, refurbishment, renaissance etc."

City Alliance (2008), states that the complex definition might be the result of trying to "unpack different contexts in which urban revitalization is practiced." Garcia et al (2008), says that these varying terms can be used interchangeably because they are all essentially a "response to the problem of urban decline" and are about the redevelopment process.

Since it works within the system of the urban it is thus an interventional process of redevelopment whose scope and depth is determined by local trends and needs. Cities Alliance (2008) contextualizes it within the global context when stating "urban renewal sits at the interface between dialogue about the role of cities both in the global economy and meeting local basic needs and equity."

Drewe, Klein and Hulsbergen (2008), seconds this point and states that in addressing the problem of urban decline, "individuals must not be treated as passive objects of intervention." How success in urban regeneration is measured then is not only in terms of "competitive economic output and built environment outcomes, but rather to be evaluated in terms of social benefits and costs and distribution among citizens" (Drewe, 2008).

A comprehensive definition for urban revitalization taken by this paper is as follows: "a process that comprises a set of urban management strategies to facilitate economic, social, environmental, cultural and historical (re)development of problematic, deprived and derelict urban areas" (Garcia et al, 2008).

Role of urban design in small towns

Urban design and planning are about preserving what is precious about the past while designing the future (Tibbalds, 1992). The employment of these is subject to market forces and free enterprise which would hardly place priority to these.

Left to themselves and without planning market forces and free enterprise produce incoherent, fragmented environments which are the inevitable manifestations of private interests. This has resulted in many large investments which have left towns littered with all kinds of 'white elephants.'

By contrast some towns have demonstrated successful urban planning producing well defined, good coordinated transport systems and relatively well located new settlements while at the same time tapping into the natural resources of the town itself. It can be done.

Cities are hailed for their influence on a global scale and contribution to a country's economic wellbeing. "Their most important advantages for the local context are said to be that it offers choice, an exciting lifestyle, access to services and facilities, stimulating features, an intellectual challenge and most obviously and importantly, it offers workplaces" (Frey, 1999). Small towns have a similar influence to the rural community.

Hildebrand Frey (1999) asserts that Urban Design is needed now more than ever because of its influence in shaping a vast number of people's lives. Also of chief importance is the impact and strain that small towns and the 'systems' that make up the life of the town have on the environment.

Case Studies

Introduction

Whenever the topic of economic development of a country is brought up all arguments tend to sway towards cities. This is understandable considering that cities are the main generators of the economy for countries as they have a certain competitive edge and are able to keep up with globalization and have a certain resilience to economic transition.

"So many small, rural communities find themselves on the losing end of globalization and economic transition, almost to the point of despondency" (Lambe& Morgan, 2009).

Some small towns, however, do manage to bounce back and be revitalized in both economy and spirit. This investigation yielded little information from Sub-Saharan countries and so it turned to cases from the USA mainly because of its many small town revitalization schemes.

The aim is to find out the ingredients for successful economic revival from those small towns that managed to recover from the brink of economic ruin. It is very easy for small towns to feel victimized by forces beyond their control, particularly when there is a lack of resources-financial, human, technological and physical. The default position is to passively wait for external redemption in the form of state funds or some big corporation wanting to expand for whatever reason (Lambe& Morgan, 2009).

There are exceptional cases however where small towns step up and take matters into their own hands. In these cases, these towns look inward to whatever assets and strengths they have and build from them.

Local

Stutterheim, Eastern Cape

Along the N6 highway about 80km from East London is the small town of Stutterheim. It is the main economic node for the Amahlathi Local municipality and also serves as an administrative and business center for neighboring towns and villages. The population the town is said to serve is estimated at 23 000 people living in the villages.

Like many small towns in South Africa, Stutterheim is no exception to apartheid planning which gives the reason for its fragmented structure. Its most densely populated township is Mlungisi located north-east of the CBD. It is here that development challenges are most rife and visible and these include poor quality neighborhood, lack of commercial infrastructure and community. Its main challenges were inaccessibility of lower income areas. Infrastructure was concentrated around the CBD with supply interruptions with regards to water and electricity. Bad roads are also said to have played a role in hindering manufacturing operations in the CBD industrial area.

Opportunities were realized in the main road, rail and the N6 corridor connecting to East London and Gauteng. Local raw materials were available for processing and tourist attractions were also regarded as assets that offered development opportunities.

1. Partnerships: The municipalities worked with ASPIRE which is the economic development agency and project manager for the regeneration initiative. The planning process helped produce a document that was to inform the municipal IDP and SDF. This document consisted of a Situational Analysis, Regeneration Strategy, and a local Spatial Development Framework.

2. Planning for integration: The first step here was to redefine the town's boundaries in order to better integrate those areas that were previously excluded and to help provide services cohesively. This was done through two concepts whose goal was to ameliorate how the town functions spatially. This helped establish where business and residential areas are and how efficiently people moved between them.

The two concepts were namely Economic Development which was about allowing people to better opportunities to enter the formal economy not just as employees but also as entrepreneurs, investors, service providers etc. This was done by giving special attention to growing sectors such as forestry, agriculture, manufacturing, and tourism.

The second was about Quality of the Public Environment which is about providing people with a clean and safe environment where they are able to access social, business and service facilities.

3. Mlungisi-Stutterheim Link: this constituted the construction of a bridge between Mlungisi and Stutterheim. It was originally envisioned a pedestrian bridge but partnership with ASPIRE had proved fruitful in that they with funding provided by the Neighborhood Development Partnership Grant-envisioned it as accommodating vehicles as well so as to capitalize on public transport use, small businesses and higher income groups.

Construction of the bridge provided short-term jobs but gave 45 local residents new skills that could help them in the job market. A labor intensive method of construction was used deliberately in order to serve this function of up-skilling people. The bridge was also used as a catalyst for the development of Mlungisi community-commercial park.

International

Ord, Nebraska
(Lembe, 2008)

The story of Ord's is that of survival and revitalization and is traced back to a time when many of Nebraska's rural towns were struggling. Personnel from the construction and engineering professions were brought to the town for the construction of the Calamus Dam miles away from the town. The town peaked to 3000 people which seemed to give the town life. When the dam was completed in the mid 80's and in the decade of the 1990's the population decreased dramatically.

It was in the year 2000 that the civic leadership decided to step up and do something. Population stabilization was the most pressing challenge for the community and so Ord undertook to tackle economic and community development simultaneously. A comprehensive approach was taken for revitalization and the areas of focus were: youth outreach, entrepreneurship, leadership development, and philanthropy.

1. Youth Outreach: investment in youth is considered a long-term strategy to sustain economic vitality. This strategy targeted schools where local leaders were active in creating a curriculum along with programs in entrepreneurship and business development. The entrepreneurship course allows students to go through an entire business cycle, do a market analysis and draw up business plans and have the assistance of a banker to assist them to develop their own project and marketing and ultimately have a business fair and make money.

2. Leadership Quest: This strategy links across generations, it aimed to bring together high school students and retirees. It is a course that takes up to nine months and is about developing people skills useful for resolving

conflict, business and influencing policy, but its strongest focus in on being able to identify individual personality traits and finding a way around differences.

3. Philanthropy: A community endowment and founders club was established in order to get as many residents involved in philanthropy as possible. Grants are distributed from the endowment by the Valley County Economic Board but it is the Nebraska Community Foundation that manages the fund. A pair of local residents gave $1.2 million towards the endowment which gave the endowment some momentum.$1000 is the least gift accepted and the interest generated is used for community development projects such as assisting young professionals start up business.

4. Entrepreneurship: The fourth pillar of the strategy consisted of a community resource team which was organized by the Chamber of Commerce which, along with the Valley County Economic Development Board are the entities that anchor community developments. This Chamber arranged for professionals such as accountants and attorneys to offer an hour free training to up and coming entrepreneurs.

Outcomes

During the period of 2000 to 2004 the areas of retail sales, personal income and per capita income all witnessed a percentage increase of 20% and above. This success was accompanied by three groundbreakings and 14 ribbon cuttings held by the Chamber of Commerce. Furthermore, a sample survey done in 2005 revealed that investment worth $4 million had been the result of these development efforts along with an expected $10 million in tax over a 10 year period from a dry mill ethanol plant which the community managed to attract. All these efforts were met with a willingness from the community even to take on volunteer public service jobs. The Central Nebraska Community Collage had prospects of starting a satellite campus which will aid in attracting revenue and investment.

Bakersville and Hayesville, North Carolina
(Lembe, 2008)

With a combined population of 654 in the year 2000, these small mountain communities fall under the much forested (80%) Clay County. The primary civil organization in Bakersville is the Bakersville Improvement Group (BIG) while in Hayesville has the Clay County Community Revitalization Association (CCCRA) and both are local volunteer-led organizations. These organizations evolved out of dramatic shocks to the local economies of the towns.

The small town of Bakersville experienced an extreme economic downturn in the decade of the 1990's. In 1996 the town had reached its economic low point when 4% of its main street was vacant. This situation was further exacerbated by flooding that took place in 1998 and the disaster wiped out almost every business in the town.

Hayesville did not have these same challenges but are a model example of how a small town can use its local assets to ensure a thriving economy. History and culture have always played an important role in Hayesville's civic and social life with theatrical performing groups dating back to 1978. It mostly popular for its heritage and outdoor recreation, offering swimming, boating, camping and fishing from Lake Chatuge and the miles of shoreline.

Their strategies consisted of two main components: building infrastructure and capacity, and tourism through events and festivals.

1. Infrastructure and capacity:

In Bakersville after the flood hit in 1998, the devastating state of the commercial district was rendered undevelopable. The community did not view this as an economic threat but an opportunity. The BIG volunteers decided to create a creek walk in the new floodplain as an addition to public space in the town and would further add to the artist-based downtown economy and attract tourist. BIG formed partnerships with various organizations; Handmade in America, National Forest Service, National Endowment for the Arts and the N.C, Fish and Wildlife Commission to fund the construction of the Cane Creek mile-long paved walkway (Lambe, 2008 p 31).

Local donations from residents were amassed. This funded a project to build decorative lights and compensation was plaques that would commemorate the funders with names of donors. This was done along Cane Walk. This gave the community a sense of ownership of the creek walk. This network of lamps reduced the electric bill for lighting along this path from $200 to $50 per month. This project became the first in a line of long-term goals to create public facilities in the floodplain adjacent to Main Street such as parks, playgrounds, and multi-use sports fields.

In Hayesville, development work is said to have started in a simple and organic way. A volunteer project by a local civic entrepreneur to clean and paint storefront awnings in the downtown area using his own pressure washing machine and paint began a chain of projects where volunteers worked and this later developed into CCCRA's development agenda. This has led to many beautification projects in the town including a playground and park built as well as landscaping of the town's entrance.

2. Tourism through events and festivals:

Besides civic infrastructure projects, volunteer civic organizations (BIG and CCCRA) also organize events and festivals. These events and festivals keep local people and tourists talking about each town as each town celebrate its own uniqueness and community cohesiveness is created. Economic and community development are redefined in a way that makes sense small rural communities.

In Bakersville, tourist dollars are raked in through the community's biggest annual event, the Rhododendron Festival. This festival celebrates the world's largest natural rhododendron gardens and is accompanied by a street fair, and antique car show children's events and other cultural attractions. The creek walk project created space for vendor tents along the walk in the pedestrian areas. This event is said to have spilled over into a number of other events including a Christmas parade, an Easter egg hunt and a Fourth of July fireworks celebration.

In Hayesville, prtnerships between CCCRA and local banks and businesses financially aided the formation of an event showcasing antique cars with a barbecue and live music called CAR-B-Q. Free publicity is provided by local newspapers and radio stations. An event called Lies and Pies involved storytelling and a pie bake-off which is also a major attraction integrating newcomers and tourists into local civic and social networks.

Outcomes

In Bakersville from 2003 to 2007 new art galleries, restaurants and service businesses have occupied 10 vacant buildings downtown. The Cane Creek Walk is said to have sparked the development of four new businesses. The Rhododendron Festival is said to have brought in $750 000 in grant funding as well as attract 2000 and 3000 visitors in the year 2006.

In Hayesville, the beautification project has resulted in the remodeling of two auto service stations at the main entry into a restaurant and furniture store. This has been accompanied by many businesses that have moved into the downtown square including a number of new service businesses, a butcher shop, bookstore and coffee shop.

3.4. Lessons learned

This section identifies 5 key lessons learned from the case study research.

Recognizing local assets and strengths

Given the shortage of resources, small towns cannot depend on the traditional development assets such as "low tax rates, limited regulation and access to trained workers" for competitive advantage. They must broaden their framework of defining what their assets for economic development are. For a small town such things as local attitudes, individual people, nonprofit organizations, businesses, open space, farms, parks, landfills for biomass, historic architecture, museums, and schools or whatever else the town possesses becomes an asset (Lambe, 2009)

Partnerships

This aspect is about recognizing opportunities and partnerships beyond municipal boundaries. This could start by widening the gaze to a regional scale which will help resources to be pooled towards shared objectives across jurisdictions. At the local level innovative local governance has the ability to strengthen a community's development strategy. The greatest success comes from the relationships formed by leaders, banks entrepreneurs and stakeholders who have a vested interest in the development of the community and are already actively involved in it.

Shared local vision

One of the key aspects of the successful economic development strategies in the case studies is their inclusiveness and open-door policy in their planning and vision building process. This openness is inclusive of government representatives, and non-profit organizations all the way to community citizens. People, even more than money tend to be the most important resource and a shared local vision cannot exclude anyone from planning and development efforts (Lembe, 2008).

.**Community Development**

Economic development is considered to be comparable in certain respects to economic development as it is about community capacity building. From the case studies what can be gathered is that piecemeal approaches to community development are not an expedient method but what is required are economic, long-term and broader goals. This does, however, mean that small gains are realized and balanced with longer-term goals. These goals must look beyond the typical political cycle.

Forward-looking

These case studies are about small towns whose revitalization evolved out of circumstances where they 'hit bottom.' The process of revitalizing then started with leadership and local people who were not afraid to try new things and assume risks. This requires proactiveness and readiness for new opportunities that may present themselves. Because a forward-looking approach is long-term, strategic and about assuming risk many things when it comes down to implementation may have to be explored through trial and error.

These international case studies have been adapted from the Small Towns Big Ideas: Case Studies in Small Town Economic Development of 2008.

CHAPTER

03

Status Quo

Introduction

Having established the issues faced by small towns and in particular Port St Johns, this chapter sets out to give an indepth understanding of the town from different scales.

This chapter begins with identifying the site location and its context. This is followed by a historic photographic memory of the site identifying what has perished with time and what has endured. the segment after that titled "**A Seasonal Town**" gives an understanding of the different users of the town.

An urban site analysis consisting of a detailed description of the site and its features is undertaken in order to understand how it is structured, how people use the space, the key role-players and competitors in the public realm from which a set of constraints and opportunities are distilled.

This set of constraints and opportunities will give direction as to the correct response to realizing revitalization of Port St Johns.



Figure 7. *Bridge Street: view from entrance of the town towards the mountain (Authour, 2016)*

Context

Location and Role

The coastal town of Port St Johns lies along the south-eastern region of the Eastern Cape Province. It is located approximately 90km southeast of Mthatha and is linked by the R61. It is regarded as having been on a decline since the formation of the new South Africa in 1994 (Port St Johns Master Plan (PSJMP), 2009, pg 10). The town is generally vibrant but receives an influx of people at certain times of the year as a tourist and holiday destination. It is the only proclaimed urban center within the municipality and serves the broader region as the main municipal and commercial hub.

The municipal area as a whole comprises of approximately 130 rural villages dispersed throughout the whole jurisdiction. (PSJ IDP, 2014/2015).

History

The town of Port St Johns is said to be founded by the native group of the Mthwa clans. White traders settled around 1845 when Ndamase was king to whom they paid customs duties. By 1884 the town was annexed into the Cape Colony and governed as a white enclave. By 1976 it was handed over to Paramount Chief K. D. Matanzima by the apartheid government in order to have the chief agree to Transkei independence. During the period of 1987-1994, the road connection between Mthatha and Port St Johns was tarred under the government of General Holomisa (PSJMP, 2009, pg 10).

Heritage

Although few, the town center does consist of buildings which carry some heritage significance located on Westgate and Main Road. These include the Town Hall and Post Office on Main Road, the Church on Westgate Street and two identical buildings of the modernist style. They do not, however, have a supporting streetscape to highlight their significance.

Topography

In terms of topography, the area is characterized by a high-lying hinterland with ranges reaching up to 1600m's above sea level (PSJMP, 2009, pg 3). The undulating topography makes it hard to access some parts of the municipality. Eight rivers traverse the hinterland region from the "northwest to southeast creating prominent and inaccessible rivers" (PSJMP, 2009, pg 3), with Umzimvubu River being the most prominent. Port St Johns town is then found at the mouth of the Umzimvubu River.

South African context

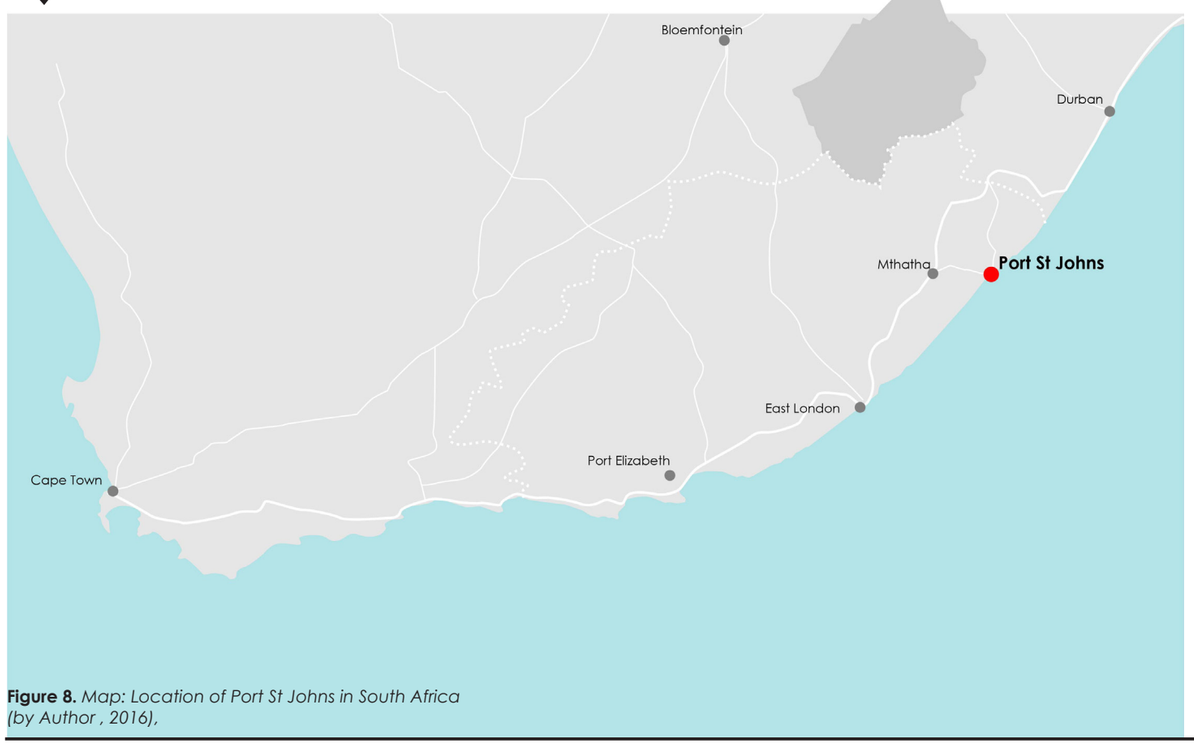


Figure 8. *Map: Location of Port St Johns in South Africa (by Author , 2016),*

Eastern Cape context

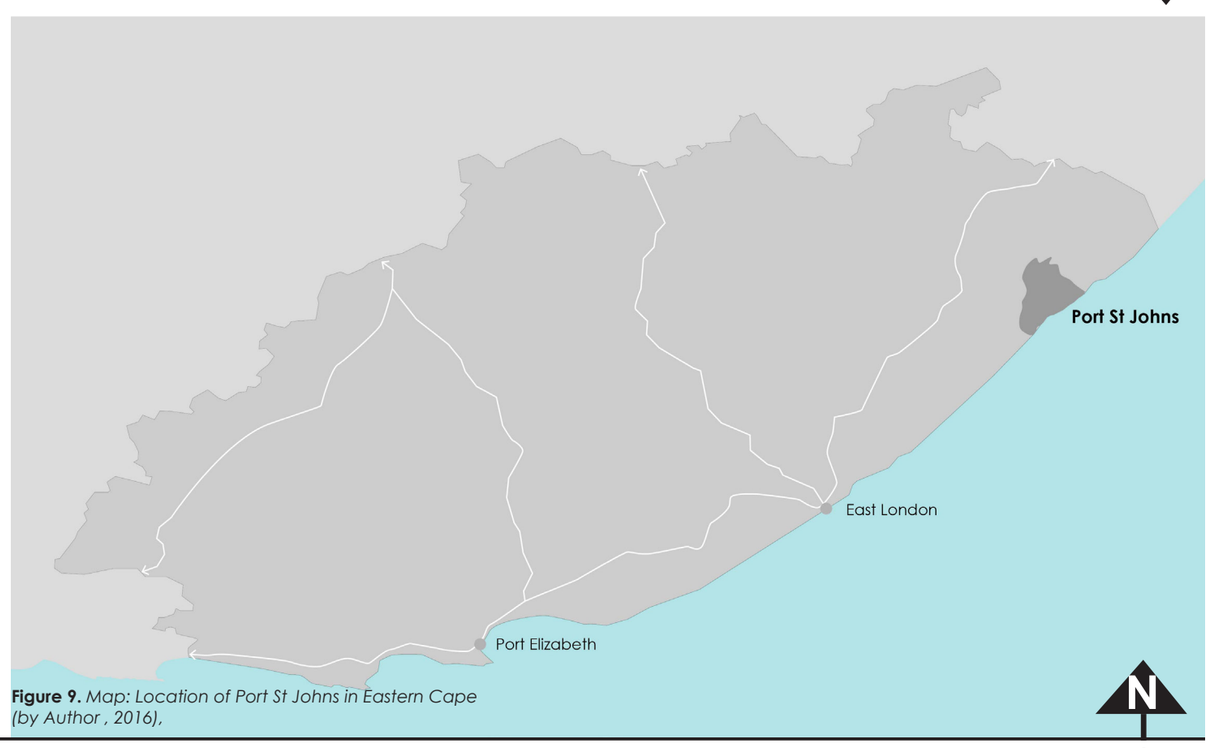


Figure 9. *Map: Location of Port St Johns in Eastern Cape (by Author , 2016),*

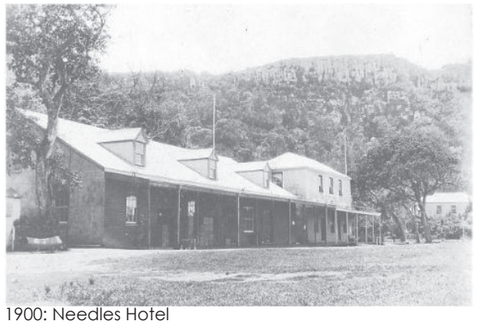


Figure 10. *Bird's eye view of Port St Johns (googleearth.com , 2016).*

History



Umzimvubu River became shallow to accommodate ships



1900: Needles Hotel



Early 1980s-1990s Westgate Street showing Needles Hotel



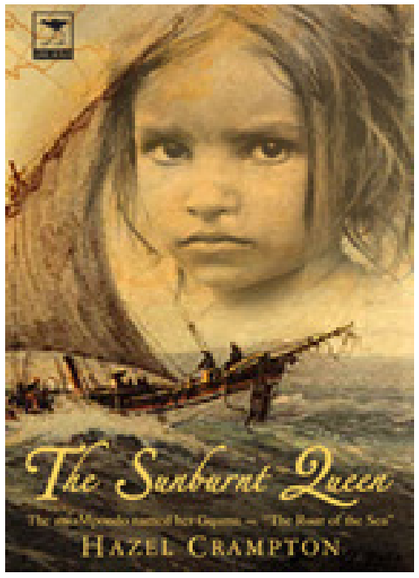
2013 dispondent state of Port St Johns' public environment

1800s

Port St Johns port with ship docking on Umzimvubu River

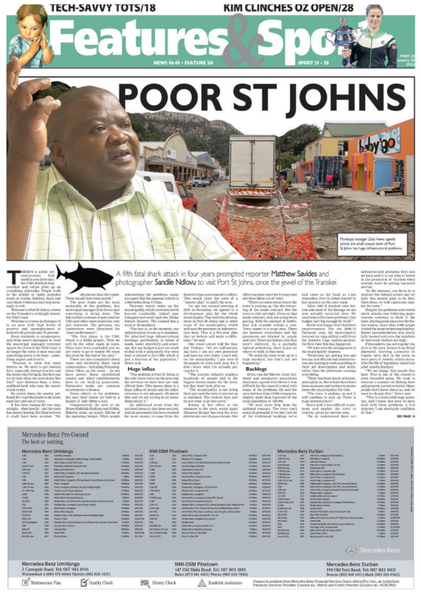


Book by Hazel Crampton about her advetures in the Wild Coast in the late 1800s



1990s

News article about the dispondent state of Port St Johns and shark attacks



1990s

Citizens march against genetically modified crops



Figure 11. *Historic timeline of Port St Johns (http://www.portstjohns.org.za, 2016),*

Port St Johns



Figure 12. *Aerial photo of Port St Johns town (www.googleearth.com, 2017)*

A Seasonal Town

1. Introduction

Over the past couple of decades, South Africa has seen many changes in its urban environments. However, there has been a growing dissatisfaction with these environments because development has been perceived to be slow, segregated and most of all of poor quality. The profession of urban design has only witnessed marginal growth in the country while the need for it has grown for many reasons. Among these reasons are the poor market-led and state-led developments, focus on competition between cities to the neglect of small towns, an increasingly mobile workforce along with the increased expectation and choice of consumers to use well-endowed and well-designed places, pollution and the dissatisfaction with towns dominated by cars.

Port St Johns is no exception and is impacted by many of these issues. While it houses the seat of the whole municipality it is not experiencing significant growth physically or economically. It also suffers from a poor image. Over the years the Council has made many attempts to revitalize the town with positive results including establishing the current town library, museum and paving the town's streets. However, the Council has fallen short of sustaining momentum and achieving a unified approach. This raises the question: How can Port St Johns see to its own revitalization?

2. Rhythms

This section begins with five graphs that have been made to analyze the flow of people in the town at different times of the year. This study is done in order, based on their various impacts, to establish an urban design strategy that responds to these patterns. The strategy proposes a way to keep the town fully functional all year round. The recognized role players in this study are tourists, the migrant population, farming, government grant earners and salary earners working in the town. The peak of the graph represents the period of most activity while the valley represents the period of least activity.

2.1. Tourist: Since the town is along the coast it becomes a hotspot for tourism in the holiday month of December. The rate of tourists coming in during the remaining months is quite low. Local residents, people from all over South Africa especially from nearby towns like Mthatha and Lusikisiki and international tourists all flock to this claimed "Jewel of the Wild Coast." The major challenge presented by this is that the town is never able to accommodate the influx of people coming into the town. While there is high-end tourist accommodation, the wealthy are able to book and pay in time but they only constitute a fraction of the population that visits the town's beaches.



The graph has its highest peaks in around the time of new years' because that is when masses of people visit needing and using a temporary shelter. The lack of accommodation leaves a majority of holidaymakers having to sleep in their cars and taxis. This causes a spike in demand for tourist accommodation and the downside is that at the moment any form of permanent accommodation will end up being vacant during off-peak periods. During the Easter period, the types of tourists using visiting are usually those using paid tourist accommodations.

2.2. Migrant: This is the population of local residents who leave the region during working months and return for holiday periods. The graph shows that December is the month where most of these migrant workers return. Although this population is local when it comes to visiting the beaches they also fall into the category of holidaymakers who use temporary accommodation. While this population group lives elsewhere for most of the year they still consider Port St Johns home and would rather invest there. This makes the December holiday period a time when most construction projects are commencing in the surrounding areas as people build and extend homes.

Construction labor in the villages is local, cheap and unprofessional; usually through what is called "udaka-boy" or "mud-boy" that will usually have a number of people with him. The challenge that this system has presented is the sprouting of hardware and furniture stores in the town center. The town has about 5 hardware stores which are hardly appropriate for the character of the town.

The effect of this is displaying, off-loading and on-loading materials on the street. Also, cargo transport is in the form of heavy burden trucks which may strain the town's roads. This is most risky considering that the town has one entrance. The opportunity that this wave of construction presents is that 'udaka-boy' can be trained in a way which will give him a certified skill .This will increase his employability and also potentially make him business savvy in order that he may employ more people.



During the months of March/April, the region sees an influx once again due to the Easter season. The migrant population thus brings with it money earned elsewhere to spend on the town through grocery shopping and buying construction materials. The holiday periods of December and March/April are usually the time of the year where personal documentation and administration is done.

2.3. Grants: A majority of the population in Port St Johns is said to live on government grants. The graph is rhythmic because the town has a predictable supply of times when people collect and spend their money (for monthly shopping). SASSA has seen it fit to bring their services closer to the citizens by opening collection points across the municipality's villages but the population still does its monthly spending in the town. Although this happens over a couple of days in the month it is worth recognizing because these people provide the town with a stable and rhythmic pattern of people spending. This population is what sustains retail in the town.



The challenge from this population group is the chaos in the town center when pay-day comes with people flooding the town selling and buying and lots of cars transporting people and goods. But most people in this group do not see the town as a space to linger, to delay and use recreational spaces due to the lack of such resources. This adds to the problem of materials being loaded on the street amidst the foot and car traffic. An opportunity presented here is the potential for the provision of services such as seating, trees, social spaces and clear pedestrian walkways to support such functions. It also presents an opportunity to create or suggest a system of loading and off-loading goods away from the street.

2.4. Farming: The lack of a major industry in the region of Port St Johns makes many families take up subsistence farming as the main source of food and means to earn some income. A study done by Betek, C., and Jumbam, N, 2015, states that although this is an important practice for the livelihoods of the people the farmers face many challenges. Chief among these challenges is the poor market for farming products, growing cost of seed, fertilizer, and pesticide impedes produce and the potential for producing a surplus. Most of the farming population is old (over 60) with limited farming experience and skills while the young aspire for cities and becoming less involved in this activity (Betek&Jumbam, 2015). Off-farm income such as grants leaves people with little motive to invest time and effort cultivating.

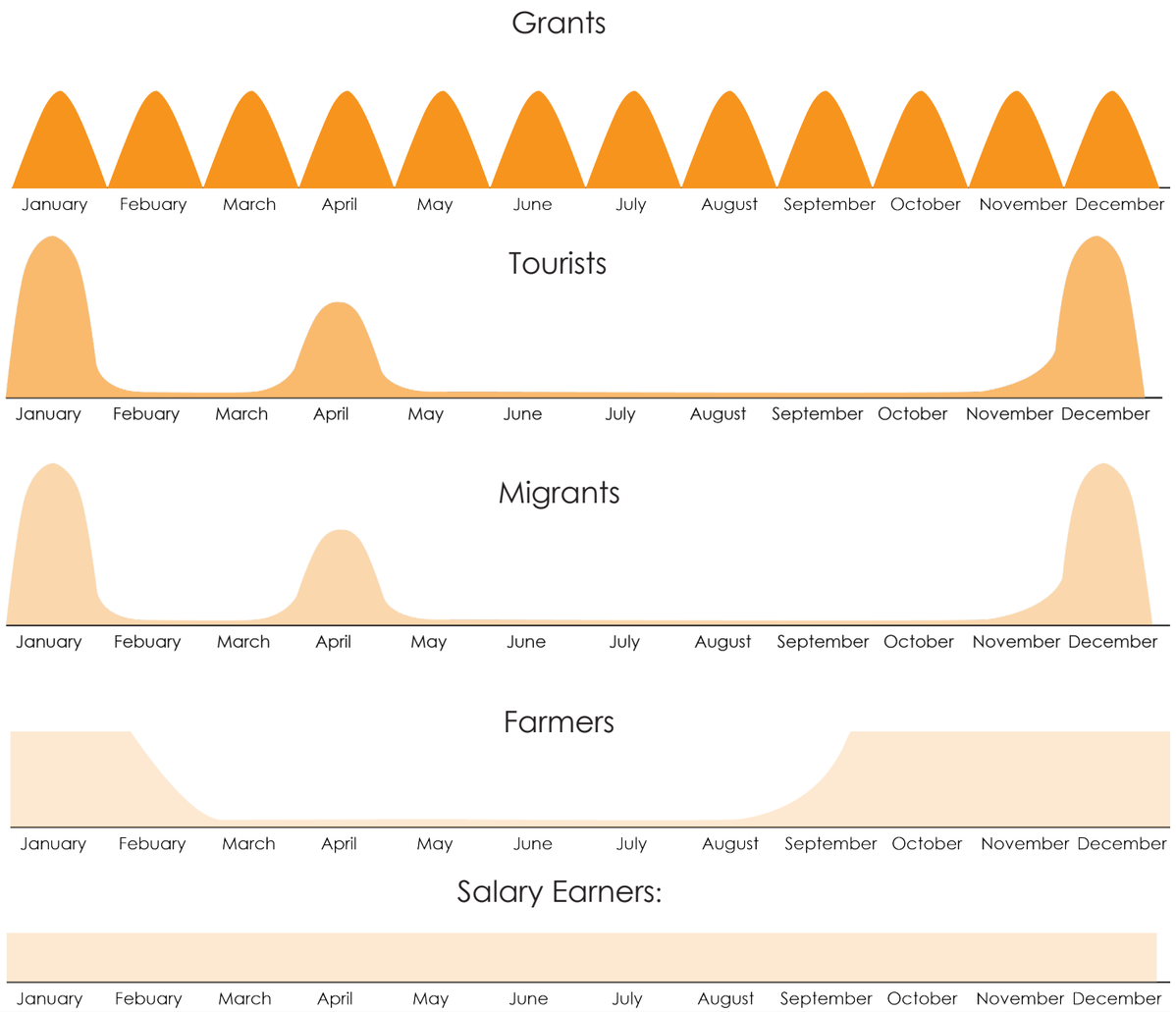
Most of what is produced is for personal consumption and only surpluses are sold. Average monthly incomes are said to range from R200 to R20 000 per month. Sales would be affected by the size of farm and produce. This also affected employment where most farmers say they are not able to pay out monthly salaries and so employ casual workers, some employ part-time workers while the bigger and higher earning farms have permanent staff. The employment demographic for farms is divided into types, where 30% is permanent staff; part-time staff constitutes 20% and casual staff making up 50%. The pay rate also varies and so do the contracts between employer and employee. Permanent staff can get paid between 400-700 pm; Part-time staff 100-125 per month and casual staff 25-35 per day (Betek & Jumbam, 2015).



The opportunities that this presents is a sustainable system for diminishing poverty in the region and Port St Johns can be a model for the rest of the rural towns in the country. This can start through the education of current farmers to persuade them of cheaper and more innovative ways of producing more. Also, training will help with bookkeeping so that small-scale farmers may be able to track production and maximize returns. This also presents an opportunity to create a financial system to assist with farm loans by making them more accessible.

2.5. Salary Earners: This is the population of people who work in the town and stay in the town. They are the stable population of the town. The graph is linear because these people directly live off the town and its resources all year round.





Site Analysis

Town size

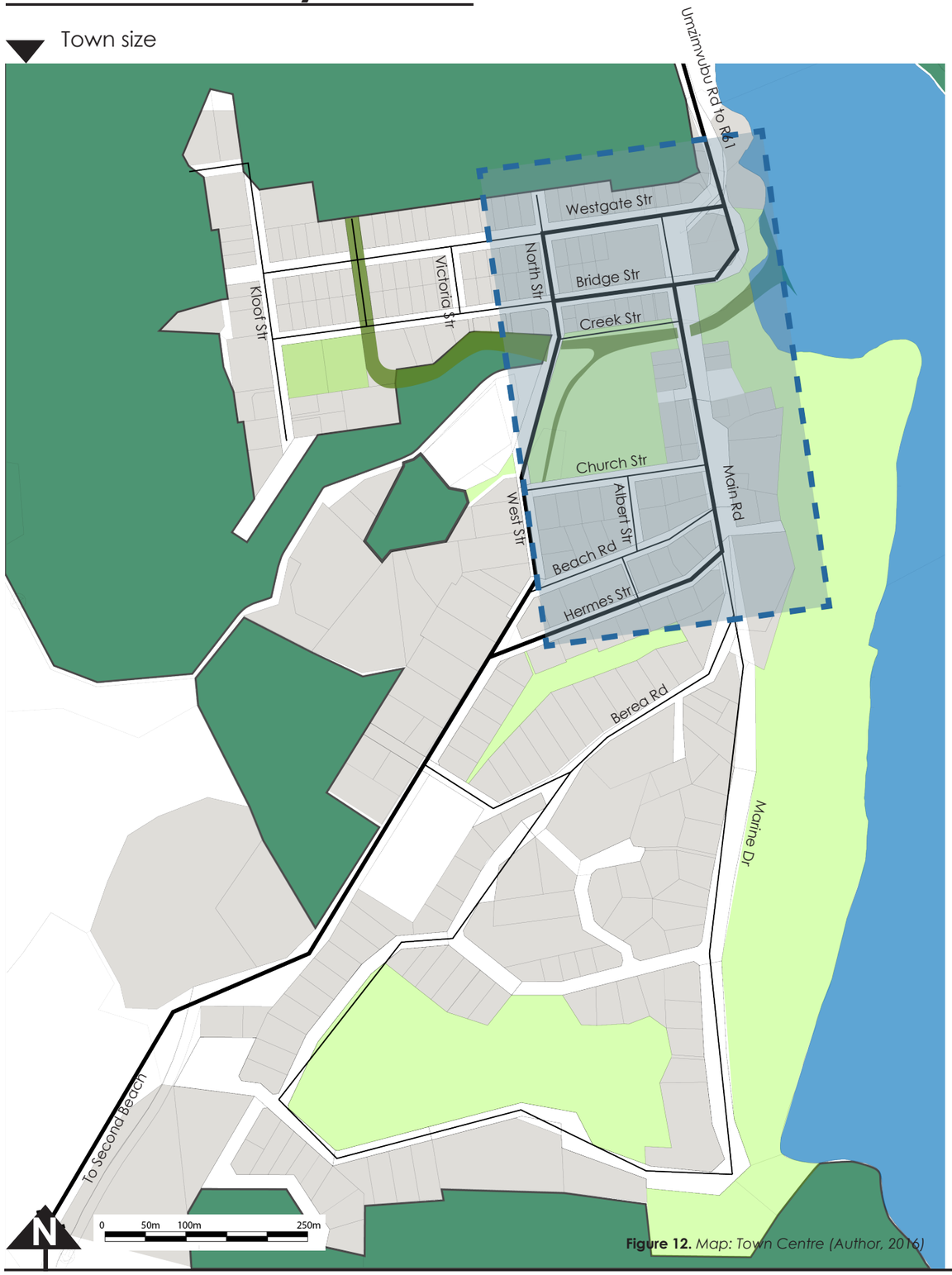


Figure 12. *Map: Town Centre (Author, 2016)*

Primary route
Secondary route
Mountanious edge
Vacant open space
Ocean
Creek
Town footprint
Town centre

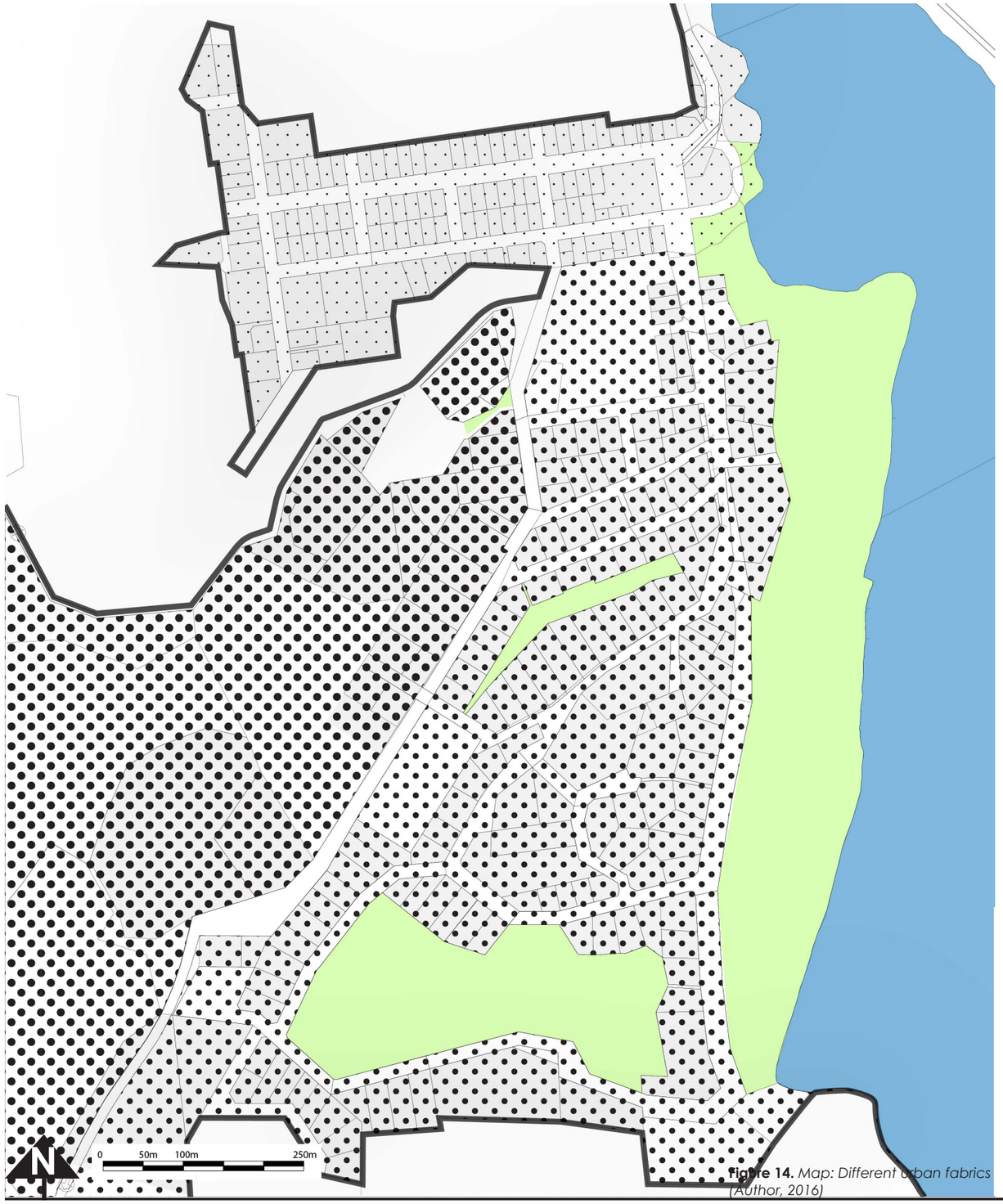
Quick Facts

Average Block Size: 140 m x 94 m
Town's urban area: 770 m x 1200 m/924 000 sqm
CBD: Entire CBD within 500 m walking distance
Amenities: Furthest amenities are within 1 km



Figure 13. *Map: Walking distance (Author, 2016)*

Fragmented urban fabric





Town Centre
Source: GoogleEarth



Suburb
Source: GoogleEarth



Township
Source: GoogleEarth

Town Centre
Suburb
Township
Mountanious edge
Vacant open space
Ocean

Figure 14. *Map: Different urban fabrics (Author, 2016)*

Movement network



Figure 14. *Map: Movement network (Author, 2016)*



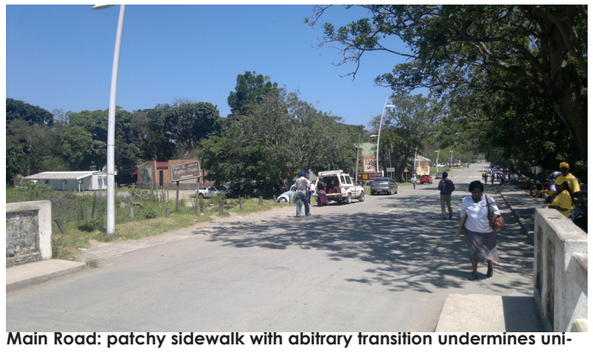
Bridge Street: Pedestrians forced to walk on the street due to cluttered sidewalks.



Main Road: people creating footpath shortcut through the sports field.



Church Street: dust cloud on dirt road connecting Main Rd and West Str.



Main Road: patchy sidewalk with abitrary transition undermines universal access standards.

Pedestrian and Cycle Access and circulation

Port St Johns is a walkable town, however, vehicles are a primary mode of transportation and receive priority.

Pedestrian access

The town itself is mainly accessible by car; once in the town walkability is achievable. Pedestrian movement within the town is usually disrupted by merchandise, traders, private cars, taxis and delivery trucks sharing road space and pavement.

Main Road and West Street are important connector roads with patchy sidewalks. Some of the roads connecting Main and West are dirt roads and are susceptible to dust clouding the street when there is a strong breeze or a car driving at a considerable speed. There is hardly any signage or surface for the pedestrian or benches for sitting while waiting for transport or the like.

Cycle facilities

Although walkable the town has great potential to be cycled on the everyday. There is however no facilities for bicycles. Traffic in the town is relatively slow enough to navigate with a bicycle in current conditions but the practice would need to be tested for favour and support before facilities are provided.

Universal access

There does not seem to be any attempts at universal access at present. This is a particular challenge considering that the sidewalk is patchy, sometimes with rocky and earth surface, also cluttered sidewalks blocked off by merchandise, loading cars and people walking all in the same space makes it difficult to achieve this.

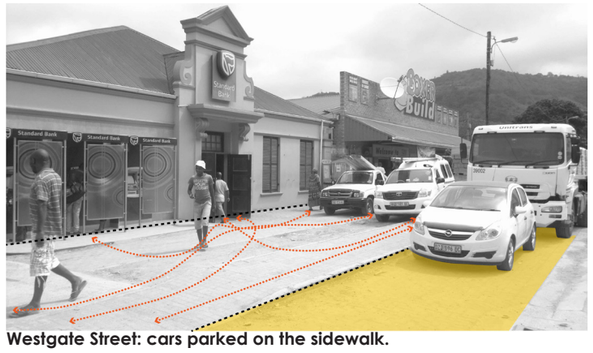
Accessibitlity



Figure 15. *Map: Accessibility (Author, 2016)*



Taxi rank: mainly for long distant trips to nearby towns and villages.



Westgate Street: cars parked on the sidewalk.



Main Road: People waiting for transport at corner Main Rd and Hermes Str

Parking lots

On-street parking

Taxi rank

Taxi stops

Vehicular Access and Parking

Although the whole town is walkable, motor vehicles remain the primary mode of transportation.

Public transport

The taxi system is the main transport system available. The taxi rank is located at the entrance of the town. At peak hours the taxis are able to transport people further destinations within the town but after that they become scarce. Besides the taxi rank there are no other designated areas for catching transport.

Service access

Heavy vehicles such as cargo trucks and vans enter and move through the town adding to the clutter noise and pollution. The town does not have a “back of house” for concealing such activity as a result on/off loading takes place in the public environment.

Private vehicles and parking

There is plenty of parking provided in the town although people prefer to park closer to the activities. This results in invasion of almost any open space available in the town core. Road markings and parking bays have also faded. With no built-in parking controls cars typically park however and wherever they want.

There are three areas designated for parking lots; one at the entrance to the town by the Needles hotel, the other by the information centre and the last by the park between the information centre and the river mouth. The rest of the parking is parallel parking found on the major streets, Main Road, Bridge and Westgate Street. Creek street is used for taxi parking, the open space by the HR offices for the municipality, the space in front of the museum and library. Many free or open spaces are used for parking as well.



Figure 16. *Map: Landscape (Author, 2016)*



Sports field: fenced, open space used as a through route and picnic space.



Golf Course



Creek Street: untreated river surface and edges, river becomes litter trap.

Primary route

Secondary route

Mountanious edge

Vacant open space

Ocean

Creek

Landscape Informants

The town has sufficient green space to be used but it is fragmented and neglected. The site is located on the foothills of the adulating mountain forms with a creek traversing the town and another coming from the CBD.

Quality of Space and Identity

There are no outdoor spaces in the town that are distinctly designed for human comfort or convenience. Shop merchandise, cars and service vehicles dominate the public realm.

Sense of place: The town has a number of positive characteristics that give it a strong sense of identity and place. This includes the undulating mountains which provide views to the ocean and nearby settlements and resorts. The lush vegetation is dominating giving the town a well defined green foreground.

The town is host to a few events spread throughout the year the most popular being the Silly Summer. The ocean provides the main attraction through First and Second Beach. The town offers a sense of seclusion in the countryside; however the public environment is poorly defined. There is a lack of a clear hierarchy of spaces and spatial legibility to distinguish between what is private and what is public.

There is a lack of articulation of role and function of public spaces and cars and service vehicles are a dominating presence.

Besides the lack of clarity and legibility and distinction between public and private space there is also a lack of visual hierarchy which discombobulates orientation, direction and finding the location of a place. There is also a conspicuous lack of public art or landmarks.

Quality of outdoor space: The core of the town is dominated by vehicles, parking, and encroachment of sidewalks by vehicles, traders and merchandise.



Figure 17. *Open Space on Main Road (Author, 2016)*

These environments are hard surfaced and barren, making them hot and unshaded in summer. The town centre has no places designed for people; this is demonstrated by the lack of street furniture.

Meaningful and usable social space in the town is a scarce commodity as well as active spaces for performance, cafe's, shops and safe and secure spaces for kids to play. The few that are provided are in a state of disrepute or do not relate well to major spaces in the town. The lack of clarity in terms of function and role of spaces undermines the potential for social space. There is little to no space designed as outdoor social space and the little provided is secluded and thus predominantly underutilized.

Spatial definition and interface: Buildings in the town along with their functions have been developed in an ad hoc manner with no distinction or separation between "front-of-house" and "back-of-house"; entrance thresholds to buildings also lack definition with no clear circulation space for pedestrians. Main Road provides the primary axis of the town and creates a vista-like impression which abruptly terminates on both ends because there are no activities to contain the space. The lack of building infill along Main Road undermines its role as a structuring element for the town. Consequently civic spaces around the town hall building and post office lack a sense of significance.

There is a massive need in the town for legibility and coherency of outdoor spaces with interactive buildings, robust spaces for social interaction and everyday use. There is plenty of potential to create such spaces within the town; the lush vegetation would create a natural green backdrop. There needs to be a shift in thinking about how space in the town can be utilized to create more vibrant and comfortable places which can be reused to host a range of activities.

Land use

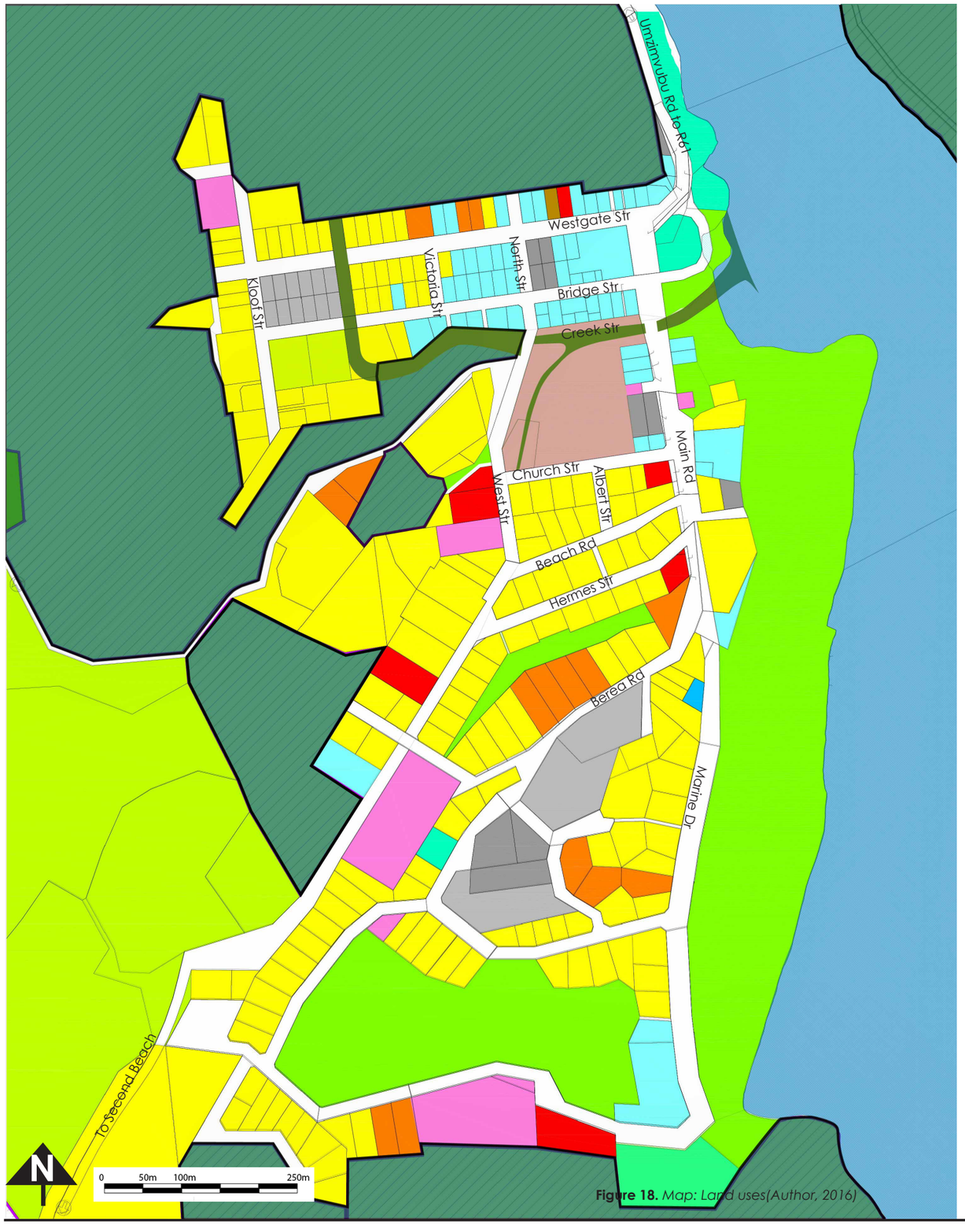


Figure 18. *Map: Land uses(Author, 2016)*



Central Business District (Author, 2016)



Greenfarm informal settlement (Author, 2017)

The town of Port St Johns is "the only proclaimed and formalized urban settlement within the Port St Johns Municipal area" and is the "only urban coastal settlement with private land owned by private individuals under a freehold tenure system" (SDF, 2010, pg 10). The land use diagram to the left shows a fragmented urban fabric caused mainly by topographic features.

Predominant in the town is the residential component. The permanent inhabitants make up most of the residential component of the town while tourist accommodation is scattered throughout the CBD. Along the steep slopes of the Mount Thesinger State Reserve is an informal township called Greenfarm. It has no formal township establishment status.

Business is concentrated at the town entrance along Westgate and Bridge Street, adjacent to Main Road.

Community and education facilities are scattered across the town. The main facilities such as the Town Hall, post office, library and museum are located on Main Road. Three schools can be found in the town, two in the suburb and one at the end of Bridge and Westgate Street. A sports field is located adjacent to the town and forms a centralized recreational space for the community. Other facilities scattered around town include a police station, clinic, churches and a regional cemetery.

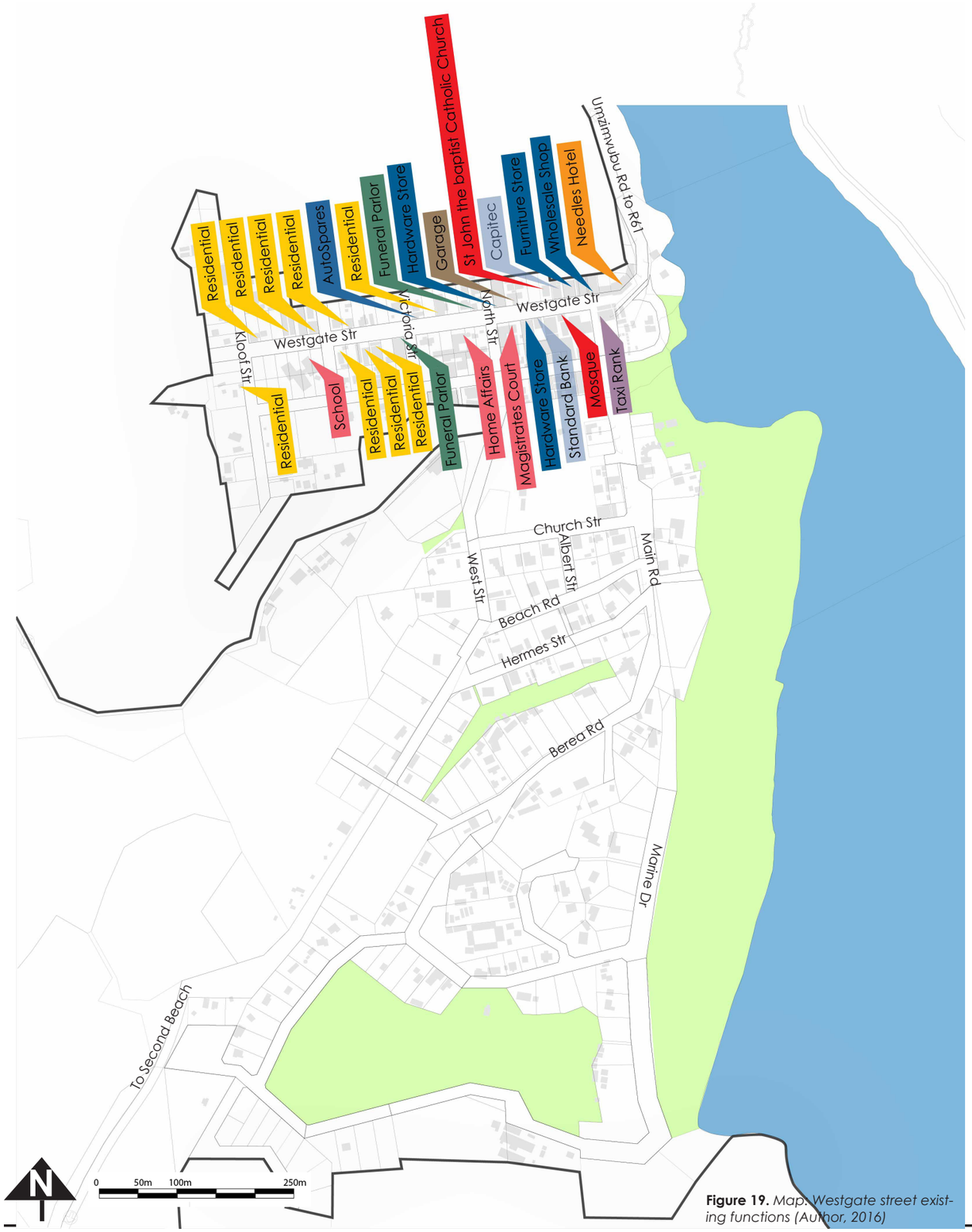


Figure 19. *Map: Westgate street existing functions (Author, 2016)*



Westgate Street: Business area towards taxi rank (Author, 2016)



Westgate Street: Street traders in front of Mosque (Author, 2016)



Westgate Street: mixed use towards Kloof Street (Author, 2016)



Westgate Street: towards Kloof Street (Author, 2016)

Westgate Street key features

Westgate street is one of two streets perpendicular to the Umzimvubu River. The street ends at the foot of the mountain on Kloof Street and culminates westward at the taxi rank towards the river mouth.

There is no distinctive architectural style but the nature of the street changes drastically from the bustle of the taxi rank to the quiet of Kloof street. It is at the taxi rank that there are a lot of crossovers between pedestrians, street traders and cars.

- Notable characteristics:
- car dominated one way street
- merchandise in the public realm
- street trade constricts pedestrian movement
- towards Kloof Street it becomes low scale mixed use

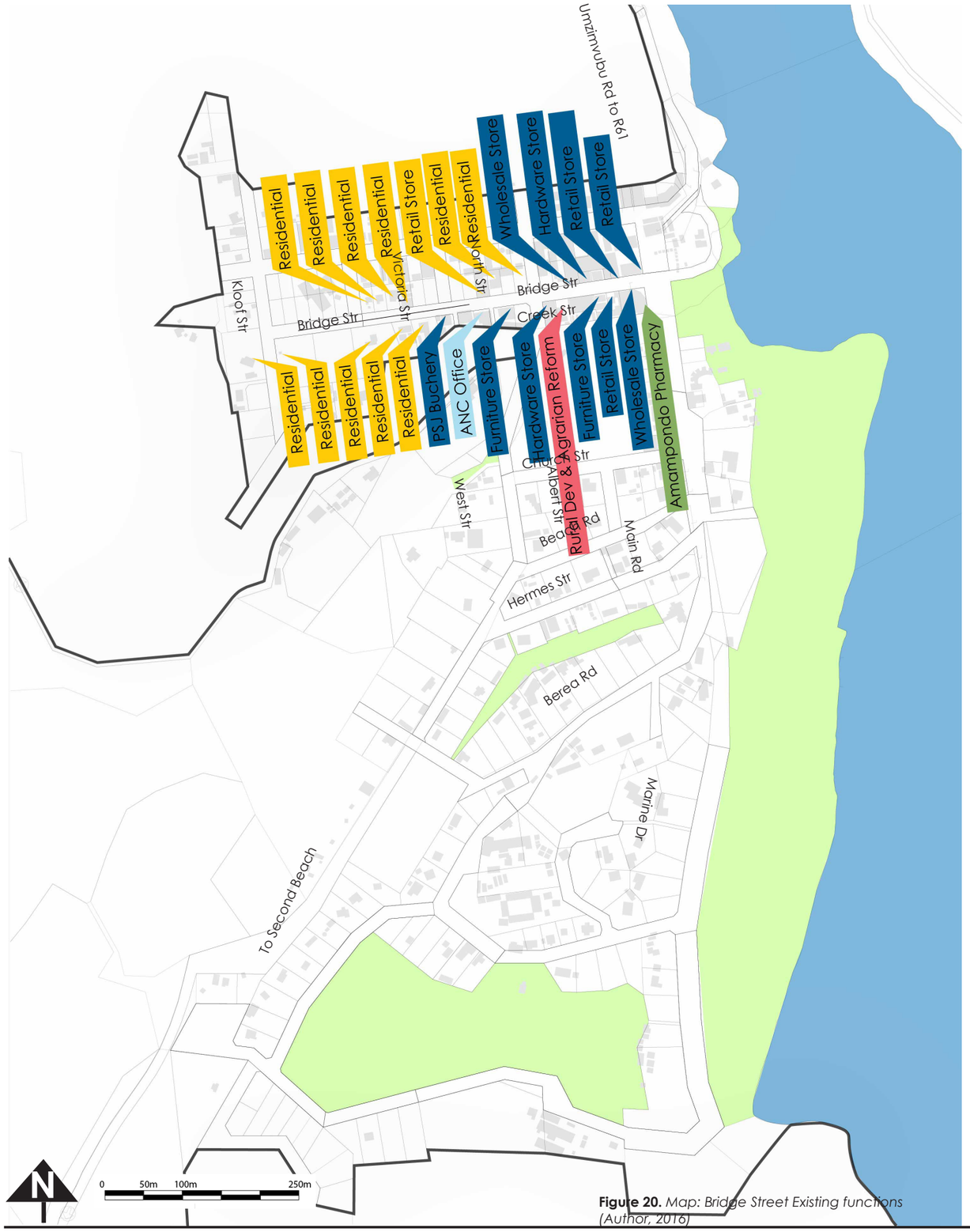


Figure 20. *Map: Bridge Street Existing functions (Author, 2016)*



Bridge Street: Pop up performance across from taxi rank (Author, 2016)



Bridge Street: Cluttered sidewalk forces pedestrians onto the street (Author, 2016)



Bridge Street: Low scale business towards Kloof Street (Author, 2016)



Bridge Street: Low scale residential (Author, 2016)

Bridge Street key features

Bridge Street runs parallel to Westgate Street. The street ends at the foot of the mountain on Kloof Street and culminates westward at the taxi rank towards the river mouth intersecting with Main Road.

This intersection is the point which upon arrival gives opportunity for going in different directions.It has a major retailer namely Boxer Store and the building containing Spar, adjacent to these ia a paved open space and the taxi rank.

Notable characteristics:

- car dominated one way street
- merchandise in the public realm
- street trade constricts pedestrian movement
- vehicular and pedestrian traffic is focused between North Street and Main Road
- towards Kloof Street it becomes more low scale residential

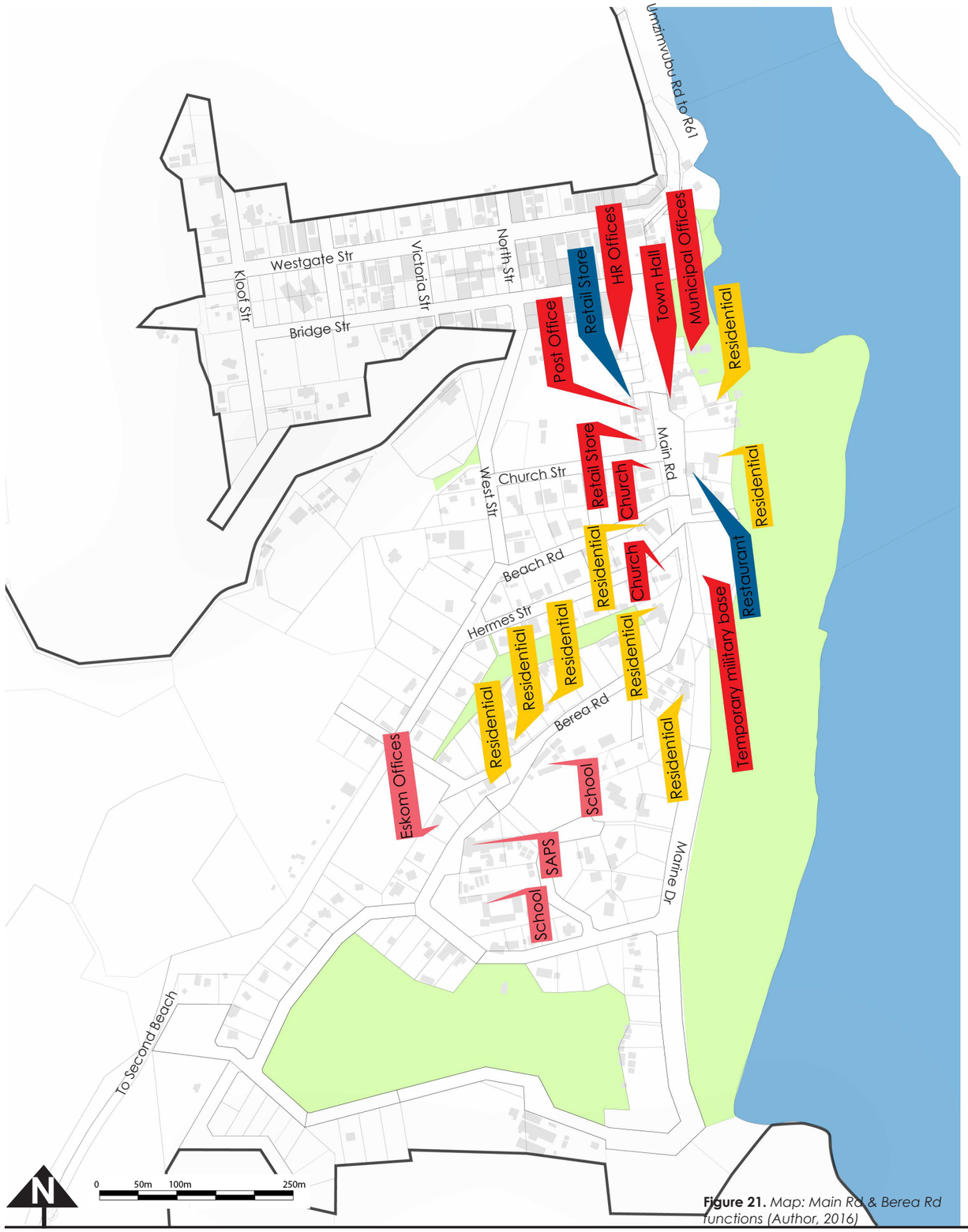


Figure 21. *Map: Main Rd & Berea Rd functions (Author, 2016)*



Main Road: towards taxi rank (Author, 2016)



Main Road: Town Hall (Author, 2016)



Berea Road: school and holiday accommodation (Author, 2016)



Berea Road: Police station (Author, 2016)

Westgate Street key features

Main Road carries the civic activities of the town. The street begins at the intersection with Westgate Street and ends on Marine Drive at First Beach.

It also has no distinctive architectural style but the nature of the street seperated by a bridge chages from the bustle of the taxi rank to a vista-like continuous street where the buildings are set back quite far from the road. Main Road also branches into Berea Road which is lined by two schools and a police station.

Notable characteristics:

- vista-like tree canopy
- wide road reserve
- scanty distribution of institutions, civic and educational facilities
- concentrated mixed use towards Westgate Street and scatered, calm towards First Beach



Reference plan (Author, 2017)

Figure 22. *Section 1-1: East-west, from river mouth to mountain (Author, 2017*



Reference plan (Author, 2017)

Figure 23. *Section 2-2: East-west from ocean to mountain (Author, 2017)*

Building heights



Figure 24. *Map: Building heights (Author, 2016)*



Bridge Street: Active high street (Author, 2016)



Bridge Street: Colonaded sidewalk (Author, 2016)



Main Road: Cluttered sidewalk (Author, 2016)

3 Storeys

2 Storeys

1 Storey

Character

Port St Johns town center has a lack of character. It changes from a bustling, car-dominated, and 'high street' activity node on the river mouth to a quieter residential setting in either direction; whether across the Main Road bridge towards Second Beach or up Westgate and Bridge Street towards Kloof Street.

The buildings range between 1-3 storey and are predominantly 1-2 storey. Many of the buildings have shelter and there is a strong colonnade system. This is undermined by street vendors, furniture, and merchandise from retail stores along the street edge. The trees and greenery are untamed and hardly decorative.

There are views both from the town center up towards the mountain and across from the park of the river mouth and The Pont resort with its beach. These views are often obstructed by the thick vegetation along with buildings and thus the place offers very few good views on foot.

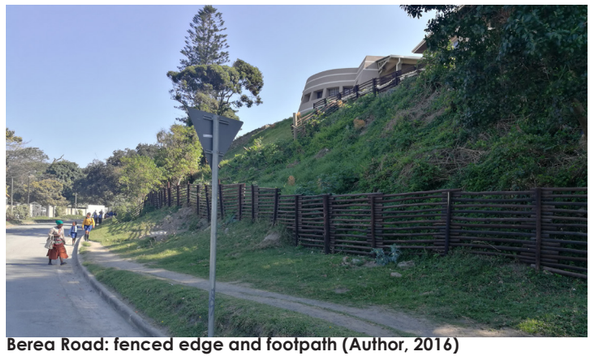
Edges



Figure 25. *Map: Edges (Author, 2016)*



Main Road: Town Hall entrance with no distinction between entrance, sidewalk and parking (Author, 2016)



Berea Road: fenced edge and footpath (Author, 2016)



Bridge Street: denced vacant plot (Author, 2016)

Canopy

Collonaded frontage

Dead edges

Wall

Fence

2. Poorly defined street edges

The street edge along the town's major streets is poorly defined. Westgate and Bridge Street have no hierarchy of clear between pedestrian, vehicle, street trader and shop front. These results in an uncomfortable overlap between all movement systems with pedestrians on the vehicular path and cars parked on pavements. In this scramble for the street; street traders appropriate let over space.

The street edge along Main Road shows little to no framing of it by built form especially considering it is the major connector between the town center and the suburb with its civic function. The buildings are far from the edge the open space is really 'space left over after plan.' Creek street looking onto the river is used as back-of-house and for parking by taxis.



Figure 26. *Map: Capital web (Author, 2016)*

Engineering Services

Stormwater

The general topography in the town core slopes towards the Umzimvubu River mouth makes stormwater runoff predictable. Basic drainage systems such as v-channels are the only means of dealing with runoff. Most of the surface is hardened which results in a concentrated flow which overloads the worn-out drainage systems that exist, because of this, water quality of runoff is poor. In the suburban area there are no visible drainage systems to deal with surface runoff nor is there an underground system. Most of the surface including roads in this area is grassed or exposed earth which makes it susceptible to puddles and mud when it rains.

Solid waste

Significant quantities of waste are generated within the town mostly in the form of non-organic waste material. The public refuse infrastructure provided in the form of bins is mostly run down and overloaded. Refuse removal is only provided in the town and a few tourism nodes (IDP, 2015-2016, pg 63), on a weekly basis and the refuse collected to a dump site. The dump site has a community recycling project called Vukayibambe Recyclers with which the municipality is also involved.

Sewage waste

The current means of sewage collection is an old septic tank.

Key issues arising from the status quo

Town: Being divided into the three major regions the town, the suburb and the township the town of Port St Johns depicts a fragmented built fabric that has no structural cohesion. Upon entry into the town, the visitor is confronted by taxi rank and its surrounding buzz of activity through street trading, retail stores, wholesale and hardware shops huddled at the entrance. These are low scale mostly one to two storeys with a single building reaching up to three stories. This bustle of energy and activity quickly dissipates only past the first block. Between North Street and Kloof Street, there is very little activity, the buildings are more sporadic and are set back from the street edge.

Suburb: The street edge in this part of town is framed by the tropical vegetation. This area hosts a bulk of the towns' civic/institutional activity but with poor signalling and poor maintenance of infrastructure.

Township: The Township is draped along the side of the mountain. It demonstrates the desire for people to be close to whatever amenities the town has to offer. It came about in an informal manner hence its absence in the municipal zoning plan and lack of town infrastructure.

Fragmented capital web

Public buildings are scattered all over the town with no strong public environment to tie it all together or reinforce the hierarchy of those streets which host these civic buildings.

Educational infrastructure

From a regional perspective, education infrastructure is languishing. Along with this is the fact that most schools are primary to junior high and hardly any high schools.

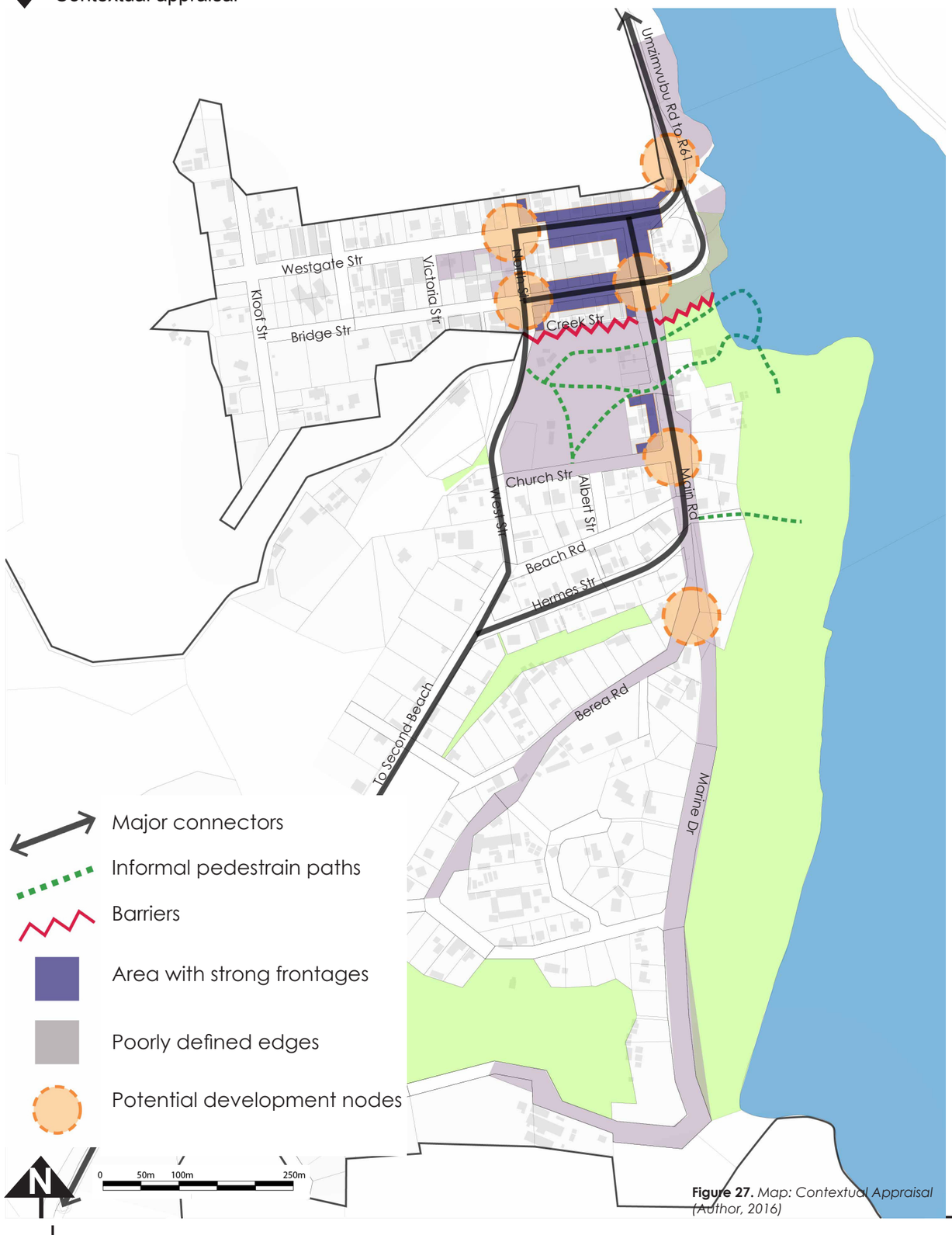


Figure 27. *Map: Contextual Appraisal (Author, 2016)*

Summary of constraints an opportunities

Constraints

In summary, the key constraints and challenges facing the town are:
1. The public realm is dominated by cars and service vehicles with little to no designed spaces for people or activities.
2. Pedestrian experience: Cars, trade and service vehicles impose onto the pedestrian realm thus increasing hazards and decreasing safety.
3. Social and active spaces: The few spaces available lack maintenance
4. Public Space: Lacks legibility, hierarchy and distinction between private and public.
5. Thresholds: There is lack of clarity as to what is front and what is back due to illegibility of entrances.
6. Stormwater: Sheet-flow runs downhill and is discharged in the Umzimvubu River; the creek traversing the town also provides a catchment area.
7. Landscaping: is generally poor, there are no intentional landscaped areas for social purposes save the lawn/park space at the town entrance and this park only requires lawn mowing for maintenance.
8. Open Space: The lack of usage of land along Creek Street to the river mouth diminishes the integration of the town core to the suburb region.

Opportunities

In summary, the key opportunities of the town are:
1. The town is the only urban centre in the municipality and can benefit from the bulk population and start to diversify its function to become a strong presence with a strong sense of identity.
2. The naturally green environment contributes to a strong sense of place and forms a scenic backdrop to every view of the town.
3. Overall the town building stock needs revamping and the patchy landscaping and open spaces can accommodate a range of uses, and can be conditioned to adapt to socio-economic and technological changes.
4. Development must be directed to infill between the existing buildings and trees in order to preserve local assets.

Implications for Framework

In summary the framework that needs to be achieved must:
1. Strengthen the identity of the town giving it a clear spatial and functional structure
2. Provide clear thresholds to spaces with clear transitions or distinctions between front and back which frees the space between buildings to accommodate a variety of uses and social spaces.
3. Promote safety and comfort for pedestrians by prioritizing these and identifying the desired qualities.
4. Highlight areas that are conducive for infill development in order to promote definition of outdoor spaces and hierarchy in terms of road structure
5. Explore creative means to resolve and rationalize parking towards sustainable means.
6. Deal with stormwater in a sustainable manner that promotes resilience in the town and also enables means of water retention and treatment.
7. Introduce a working landscape that not only deals with stormwater but is a means of food production in a way which impacts and promotes the socio-economic process.

Chapter Summary

Port St Johns is said to be the "Gem of the Wild Coast," boasting of an untouched coastline. Many people from outside Port St Johns visit the town for its splendid beaches, fishing, fertile soil, thich sub-tropical vegetation. The town has plenty of tourist attractions, and offers a sense of recline.

While many people come to Port St Johns for holiday-making, the people from within Port St Johns however seek to leave the town in order to make look for jobs and higher order services from elsewhere in the province and the country.

The legacy of this is a seasonal town which is injected with a population influx that it is not able to bear. Most of the population of Port St Johns is dependent on grants and subsistant farming where only surplus is sold. The young population has very little opportunity to develop in the town post metric. To develop further they have to leave the town.

This sudden burst of activity at particular point of the year overloads the aged infrustructure of the town leaving it unable to recover in during the dry months. The need to make ends meet has led to a lot of street traders who usually encroach the sidewalk and push pedestrians onto the street.

Urban Fabric:
The town has a fragmented urban fabric and capital web. These fragments are not well connected.

Public Realm:
The town is car dominated and for the most part does not cater cater well for perdestrians due to mny entities competing for public space. Vehicles, cargo loading, traders and merchandice also encroach onto the sidewalk. This creates a chaotic public realm.

One of the strengths of the town is that everything is within walking distance. Convenience in walking is met with an uncomfortable public realm. There is no sense of transition from public spaces to semi-private to private. Uneven, damaged and patchy paving makes the town unconducive for people that are physically challenged.

Environmental:

Being part of the Wild Coast the town is very scenic however, the environment is not well taken care of. Environmental features such as the creek have polluted water and become litter traps.

A strategy to deal with these challenges has to deal with all three spheres of impact in order to revitalize Port St Johns.



Figure 28. *Marine Drive: view of First Beach at high tide (Authour, 2016)*

CHAPTER

04

Precedents

Introduction

The status quo shas provided a comprehensive study of the structure and systems of the town of Port St Johns. The major spatial issues in the town are identified to fall into three spheres: The urban fabric, public realm and environment. This chapter is about drawing inspiration from various projects which have qualities that are applicable to these three spheres.

Urban Fabric
The Violence Prevention through Urban Upgrading project in Khayelitsha is about using public space to create a unified urban fabric by unifying the capital web. The plan incorporates structuring and orientation elements through "active boxes which act as landmarks" (https://umusama2015.wordpress.com/2015/04/11/cpuu/). Simple inteventions such as adding street lighting, quality play equipment, sport facilitie and incorporating street traders into the plan helps create a unified, safe and vibrant public environment.

Public Realm
The Beach Front Upgrade in Durban is chosen for its coastal location. It demonstrates coastal edge treatment and placemaking by prioritizing the pedestrian while being sensitive to the environment. Its uninterrupted walkway provides clear lines of site for pedestrians; pockets of activities create a promenade. While providing a scenic experience a strong edge between the natural and activities serves to protect natural systems.

Environment
The Diepsloot project by Global Studio has not been built yet but its plan provides a good example of how to use natural systems as a structuring device. It creates opportunities for using natural systems to deal with issues of stormwater runoff, water collection and treatment and community aggriculture. Natural space is edged and protected and the river edge can be rehabilitated.

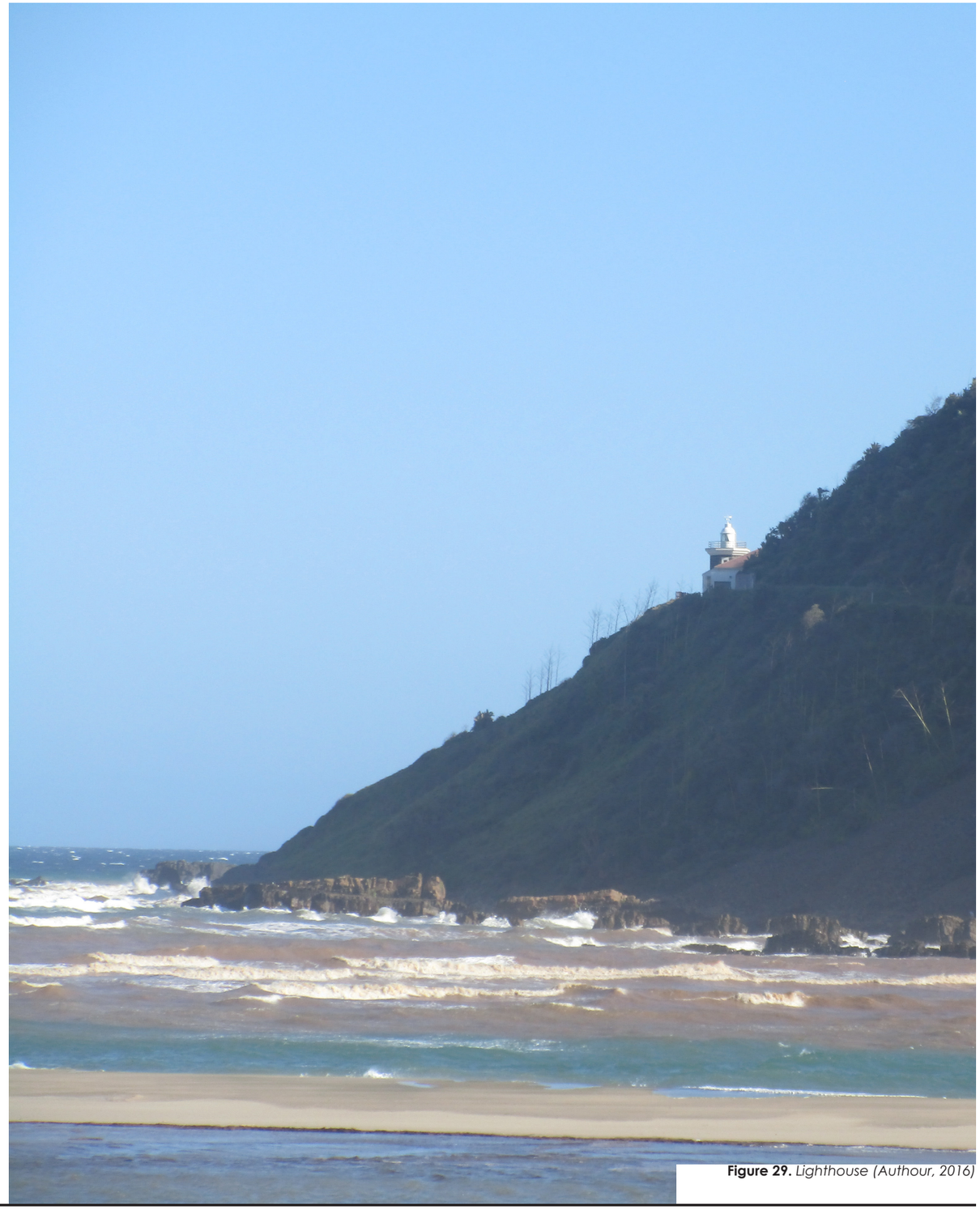


Figure 29. *Lighthouse (Authour, 2016)*

Precedents



Figure 30. *Promenade of activities, boardwalk & beach (Source: http://bloc.archi/durban-beachfront-upgrade-accessed 30/10/2017)*



Figure 31. *Seperation of activities and walking path (Source: http://bloc.archi/durban-beachfront-upgrade-accessed 30/10/2017)*

Beach Front Upgrade
Durban

Architects: Bloc Architects

Project Architect: Micheal Todd
Year: 2009

Principles

Uninterrupted walkway

Clear line of sight - for pedestrians

Pockets of activities - Central walkway is flanked by community facilities, public space and restaurants.

Strong edge - between natural and activities

Serves to **protect natural systems**

Creates **scenic experience** along the promenade by providing a natural backdrop

E**ase of access and movement**

Spaces are **well defined, well contained**



Figure 32. *Map: Natural resource used as a structuring element (Source: https://architectureau.com/articles/the-international-perspective-diepsloot-slum-upgrade-by-global-studio/#img=9 -accessed 30/20/2017)*







Diepsloot
Johannesburg

Architect: The Global Studio

Project Architect:
Mark Tyrell
Daniel Griffin

Year: 2009

Principles

Pedestrian links

River Edge rehabilitation

Planting indigenous plants to regulate flow

Opportunity for community agriculture

Edge and protect natural space









Figure 33. *Safety promoted though connecting well lit major pedestrian routes (https://umusama2015.wordpress.com/2015/04/11/vpuu/, 2017)*

Violence Prevention through Urban Upgrading (VPUU)
Khayelitsha, Cape Town

Group: VPUU

Project Architect: Micheal Todd
Year: 2009

Principles

Surveillance & visibility: Eyes on the street

Territoriality: sense of ownership by residents

Defined Access and Movement: well defined routes to & through public space

Image & aesthetics: a positive image of place achieved through ensuring human scale

Visual connections: through a series of small community buildings, "active boxes act as landmarks

Interventions

Street lighting

Quality play equipment, sports facilities and pedestrian routes for kids

Mixed use: public spaces with shops, residences & public amenities

Informal traders: contribute to vibrant street life

Source: https://umusama2015.wordpress.com/2015/04/11/vpuu/

CHAPTER

05

Towards a Strategy

Introduction

Among the many development challenges faced by Port St Johns this research has identified education as a development scenarion to help the town realize it revitalizatioin. The PSJ IDP has identified the challenges faced by its education sector as "further compounding to thier development challenge" (IDP, 2017, pg 40).

This is because the 51.8 % of the total population is economically active, 42 % is school-going and 5.6 % is elderly. Of the economically active population, ages between 15-65 only a few have adiquate education and literacy skills. The Port St Johns Municipality has the lowest literacy rate in the district as indicated in the graph below.

According to the graph below the population average is that of 20 years and above with a literacy level of a grade 7 learner (IDP, 2017, pg 40). Statistica further claim that 23 % of the population is unschooled, while 11.8 % managed to attain matric level by 2011 and 2.2 % of young adults 20 years and above have managed to get qualifications beyond matric (IDP, 2017, pg 40).

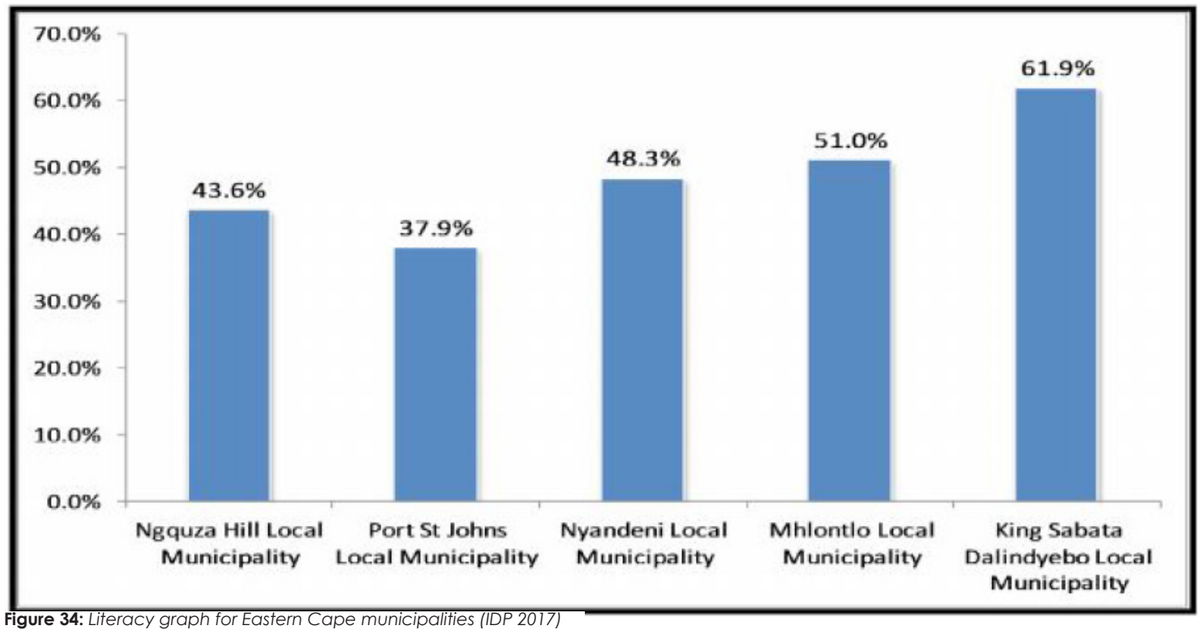


Figure 34: *Literacy graph for Eastern Cape municipalities (IDP 2017)*

Considering the challenge of a young, relatively unskilled population and the seasonal fluctuations in terms of population in the town. The strategy of this research is to insert educational amenities to improve skills the local population and to even out seasonal fluctuatiions especially in the months from February to November.

What this strategy proposes is a Technical Vocational Education and Training (TVET) college that cater to five priority skills that are in demand in the region namely Construction, Tourism and Hospitality, Agriculture, Business and Entrepreneurship and Information Technology. To cut costs of travel and assure a dedicated student population residences for the campus would be provided in the town.

Before the strategy is unpacked, is it important to lay the theoretical groundwork about education, in general in the country and as it relates to Port St Johns.

Education

Background

In 22 years of democracy, South Africa has seen major changes in its education system. From the onset there was consensus in the country to depart from the old schooling system with all of its much protested baggage. In the previous regime quality education was conspicuously racially homogenous catering mainly for white students which corresponded with the quality of schools provided.

The legacy of this is that the schools that previously served Black students have remained dysfunctional and lacking the ability to deliver the much needed numeracy and literary skills needed. Added to this the new democracy came with a change in the perception towards systems of education such as vocational education or vocationally oriented education (CDE, 2015).

The primary focus of this dissertation is higher and vocational education. This assessment is important because there is a direct correlation between quality of education, the job market and wealth (Spaull, 2015). Since the dawn of democracy the country's education system has seen many changes including a downgrade of standard (Spaull, 2015). It is then crucial to understand the current education system in order to contribute on how it can better impact the country but mostly the localities which graduates call home. The first step in a step forward is to understand the governmental setup on which the education system sits.

The running of the education system is distributed among the three tiers of government. Broad policy and the education budget are determined at national level whereas matters of implementation are handled at provincial level (Department of Basic education, 2013).

Local government then depends on the decisions made at national and provincial level. Different localities however have different needs and demands and the current system does not have the flexibility to allow decisions to be determined at the local level. At the same time the education system is tethered with issues of access to quality education, good learning environments and competency capacities from both teachers and learners.

What compounds the issue in education is the fact of inequality between wealthy and poor learners. Spaull, 2015, traces this problem back to the lower grades and since the system of education is a cumulative process this inequality becomes entrenched from the foundational phase. This in fact sets them up for failure when it comes to the job market and how much they earn (Spaull, 2015).

Much more is the fact that over half the students who enrol in school do not make it to grade 12 and even fewer make it to higher education. Spaull (2015, pp 36), suggests that children in rural and poor areas of the country fall behind from as far as grade 3 where they are most likely three years behind their wealthy peers in terms of learning and this gap grows. By the time they get to grade 9 they are five years behind with only a rudimentary grasp of literacy and numeracy knowledge which is hard to acquire in the latter years.

The figure bellow shows the relationship between society, quality of education and the labour market. These results are from the Quarterly Labour Force Survey (QLFS), 2014 and demonstrate the condition of the country's labour market.

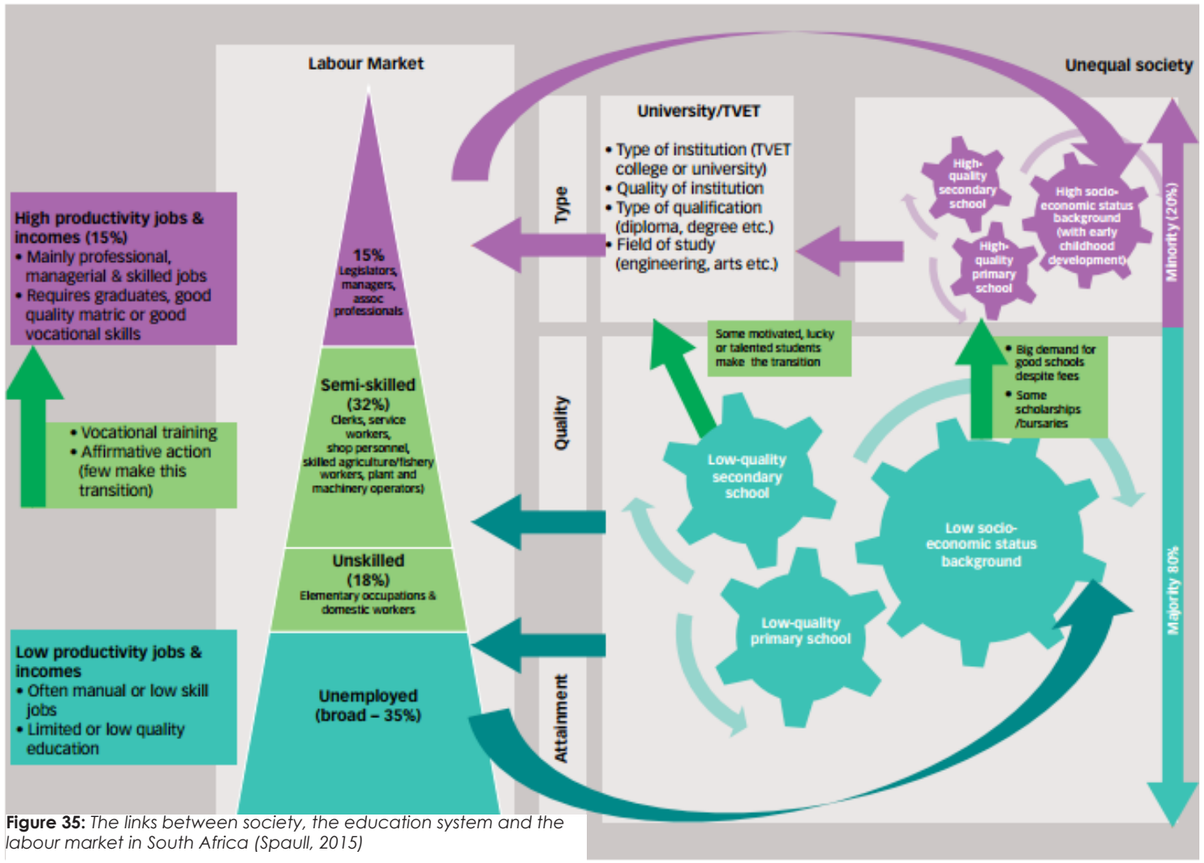


Figure 35: *The links between society, the education system and the labour market in South Africa (Spaull, 2015)*

This diagram shows that 35% of the labour force was unemployed, 18% employed in unskilled occupations, people who were in semi-skilled jobs formed 32% and those who are highly skilled make up 15%. This diagram illustrates the stark inequality in the education system that, the children who attain higher qualifications and the upper end of the job market are those who attend high-cost functional schools.

Those who attend dysfunctional schools are then caught in a trap of not attaining higher qualifications and thus the lower end of the labour market without the means of social mobility. The abolition of apartheid has afforded a racial mix in the top end but unfortunately this dualistic education system is divided along class lines and its tie to the labour market means that it only replicates and perpetuates itself.

Quite alarming is the drop-out rate among rural and poor students between the grades 10 to 12. This means that the knowledge acquired by students up to this point comes to nought in terms of any prospects toward upward social mobility and thus low quality education becomes a poverty trap in that it is directly proportional to the job market. In his paper "The When and How of Leaving School: The Policy Implications of New Evidence on Secondary Schooling in South Africa", Martin Gustafsson gives four reasons why students drop out of school: '(1) lack of funds; (2) job hunting; (3) failing grades; and (4) pregnancy (among female learners)' (Gustafsson, 2011).

Gustafsson argues that this is a ripple effect of low quality education in the country. More recent studies through the National Income Dynamics Study (NIDS) suggests that socio-economic status has a hand in drop-out rates in that those learners effected by such end up being unable to keep up pace with their peers in school.

Amandla Development (AD), 2010, argues that the best way to provide meaningful education service delivery is to provide first capacity support to those groups such as NGO's with capacity support. This, along with a comprehensive strategy can assist these groups to "effect sustainable expansion of access to quality education in South Africa" (Amandla Development, 2010).

They argue that there has to be coordination between NGO's, funders and the student learning process. Spaull, 2015 expands this list and proposes implementation of a "national reading campaign at the foundational phase, increased teacher knowledge and teaching skill, countrywide audit of district officials and curriculum advisors and reduce drop-out caused by teenage pregnancy and childbearing."

Higher Education in South Africa- Vocational Education

The focus of this section is on understanding how the education system of the country is structured and what the effects of this structure are on the type and quality of learner or professional produced. The South African education system is diversified, it is made up of three main categories: General Education (GE), which is an accumulative process of learning from grade 1 to 12; the second category is that of Further Education and Training (FET) which cater for grades 10 to 12 and the last category is that of Vocational learning which falls between GE and FET.

The main domain of schooling in South Africa is that of general education however this domain is heavily criticized for not having the "diversity of appropriate and socially acceptable education pathways post grade 9" (Stumpf, R & Niebuhr, G, 2015).

This causes a lot of students to drop out. Stumpf and Niebuhr suggest that one likely reason is that learners perceive the available schooling system as not useful in helping them find a job. Apart from that the requirements for the Senior Certificate after grade 9 are perceived as not suitable by the learners.

Port St Johns

The Port St Johns Municipality is subject to the same challenges identified in the theoretical part of this section. Further challenges as identified by the IDP include:

- some schools still constructed from mud,
- bad roads limmiting accessibility to the schools along with limited transport
- some schools are overcrowded whilst some have too few students,
- limited access to libraries and science laboratories,
- some schools have no access to water and sanitation

Furhermore foundational education i.e. preschools and creches are usuallly housed in private homes. Students have to travel long distances to school and this is caused by a "dire lack of high schools" (IDP, 2017, pg 39).

"Our economy needs a skilled local labour force to be able to deal with required infrastructure development and improve chances of absorption of the unemployed into our active labour market." (IDP, 2017, pg 40).

(*These challenges are excerpted from the Port St Johns IDP, 2016-2017*)

A Reformed Education Paradigm

The research on the country's education system has much decry and criticism. The criticism does not need any more adding to as it is quite evident that the South African education system is in a state of crisis. A way forward is to suggest alternatives to how the country does education. In his book "A pattern language" Christopher Alexander quotes Ivan Illich's suggestion of a 'network of learning' where "professionals and workgroups offer a class or apprenticeships in the things they know and love- in their offices and workshops" (Alexander et al, 1977, pg 101).

The idea is that of a master and apprentice where learning comes from skilled professionals who impart their knowledge to pupils who learn through a real project that the professional is already doing. Through this method the student receives to do a 'masterpiece' in the particular field of study which upon success the student joins the 'guild of fellows' (Alexander et al, 1977).

The point of this idea is that living and learning are the same. Institutions such as the university are seen as a "market place of ideas, located all over town" (Alexander et al, 1977, pg 232).

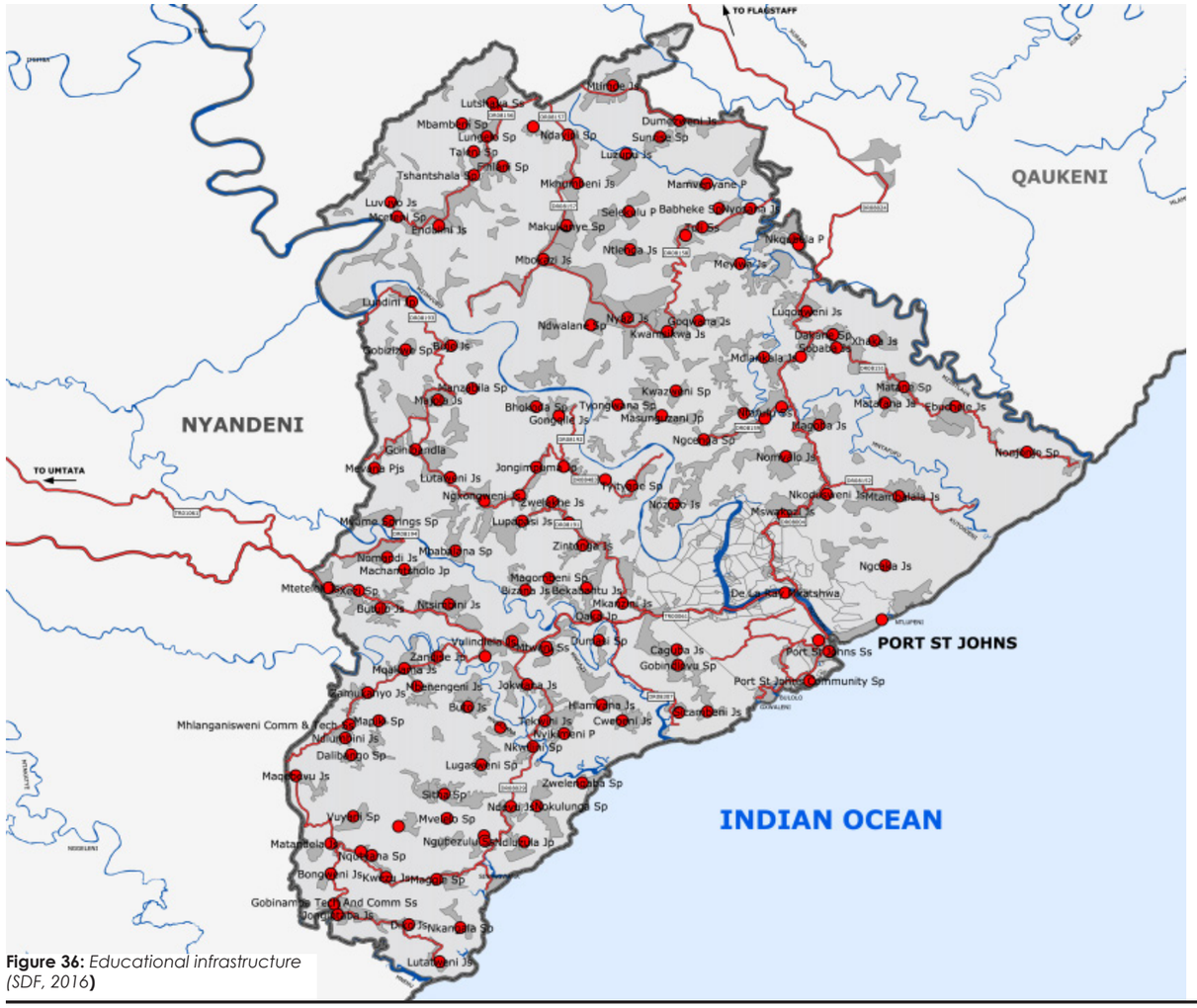


Figure 36: *Educational infrastructure (SDF, 2016)*

The idea of the university as a market place is further expounded in the true sense of the term, where, each stall or in this case course offered has some special quality to attract people by it genuine quality and the one interested in taking it up has the opportunity to examine it before they enrol.

The goal is that the university today resembles that of old in the middle ages where collections of teachers with something to offer attract students who will learn under them the particular set of skills they have to offer. Also the university institution itself is not an isolated entity with overly administered boundaries (Alexander et al, 1977).

The university does not become a market place in academic or intellectual capacity only but its physical makeup reflects this sentiment. The university becomes a "collection of buildings, situated along pedestrian paths..." (Alexander et al, 1977, pg 233). This is radically different from the current school system which operates on the assumption that quality of life depends on knowing some secret things that only teachers can reveal.

The flaw in this system is that it expects everyone to learn the same things 'secrets' the same way. The curriculum is rigid and needs to be learned in an orderly succession and those who cannot keep up will have to repeat the process which delays them for an entire year. In the case of South Africa this inability to keep up usually leads to school dropouts most in high school between grades 10-12. Even with a foundation of 10-12 years if the student does not continue to higher learning their years of schooling are rendered superfluous.

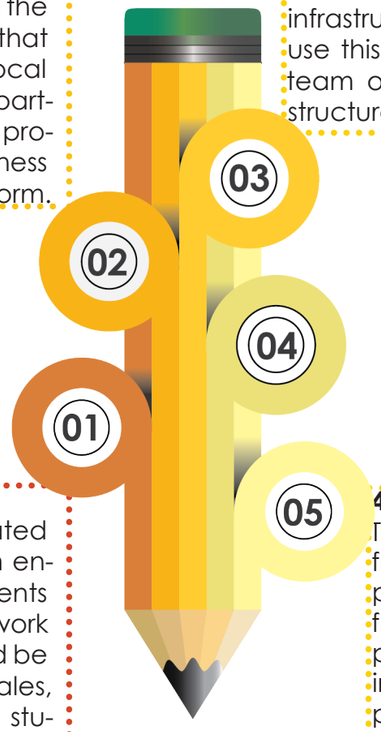
Strategy

The campus:
This College would not be a fresh start-up project but an extension of an existing TVET college such as King Sabatha Dalindyebo FET College in Mthatha. This is a well establishes college with seven campuses distributed in the towns of Mthatha, Ngcobo, and Libode. This will help avoid accreditation time-frames. It will focus on priority skills development for the area with the aim of creating an employable workforce from within the town and for the town.

The aim is to have a formal accreditation system where the students graduate with recognized certificates. Each skill will have its own faculty, classroom, and practice or practical facilities. These will be distributed along Main Street so as to integrate the campus within the town. Partnerships will be formed with nearby businesses so as to allow a system of practical skills development and mentoring.

2. Tourism and Hospitality:
This department would have a lot to offer as it is the strongest sector for the economy of Port St Johns. However, this dissertation proposes a strategy that goes beyond the seasonal approach into one that allows tourism to be an all year thing. A major part of this is the aforementioned school curriculum that is tailored towards educating the local and young population. This department would work to enhance the professional intelligence for local business and even cause new business to form.

3. Construction:
This field will help the youth and aspiring entrepreneurs tap into the construction resource happening in the greater region every year. It will equip them with the ability to produce a good quality product. This goes beyond the construction of houses but also town infrastructure. The municipality can use this opportunity to create its own team of workers responsible for infrastructure maintenance in the town.



5. Business and Entrepreneurship:
This will help the municipality build investment from within through economic gardening. The proposal for a campus is to cater to the type of skills to tap into. Therefore business would at first be targeted towards these specific sectors with the goal of expanding whatever other sectors innovative thinkers would raise as a challenge to tackle. Partnerships with local stakeholders will be important in order to initiate a grooming process for young upcoming entrepreneurs.

The strategy applies at two scales:
1. **The Regional**
2. **Town scale**

1. Residence:
A great way to ensure a dedicated student population is to create an environment that allows aspiring students the opportunity to live, play, network and socialize. The residences would be divided into three buildings, for males, females and senior students with students with special needs. These residents will be dispersed across the town same as the classrooms in order that campus life is integrated with the town.

These buildings would be used to reinforce the urban fabric of the town and also reinstate the civic buildings. The residences would be occupied by the students but a system will be created where the students move out during the holiday months and the residences become holiday accommodation. This will help the school make money during the off-peak season meaning that they would be operational all year round

4. Farming:
This is not a field of learning that would be unfamiliar to the local population as most families practice subsistence farming. However what this faculty would provide for is a skill that helps people be more business oriented with their farming. This also helps because this would teach people a skill beyond the usual seasonal process but also innovative and year-round means of crop farming. A program to educate people about the very rich plant and animal population surrounding them and a will be established so that natural resources do not lie dormant and untapped into by the local people as valuable.

This idea is meant to go beyond being a campus only program but will be set to tap into the local school curriculum of the schools in the greater region to learn from. This would mean local schools would have regular tours once the school of farming is well established. The river along Creek street will be used as a landscape project with a bioswale, and some urban landscaping to create a place for people that can be used for educational tourism.

Vision

To revitalize Port St Johns through fusing education and living

By inserting an urban campus that will upskill the large young and unskilled population in the town and municipality and also even out the seasonal population fluctuations.



Figure 37. *Conceptual Diagram (Author, 2017)*

Framework



Figure 38. *Map: Conceptual framework (Author, 2017)*

The Spatial Concept provides a holistic view of the collective contribution of key development plans realizing the regeneration potential of the Town. It illustrates the manner in which the various elements come together and the progression of their development because the intention is that they develop incrementally. This is put together into a framework to guide depicting the overall scheme and denoting the recommended response of individual sites while helping them realize their own potential.

The urban design intervention is about inserting a new land use into the town by introducing an FET college campus with mixed use residences. The idea is to insert a new demographic into the town, and integrate the campus with the town by infilling the campus into Main Road and Creek Street and creating legible forecourts which tie into a new heart for the town.

The spatial concept underpinning the precinct plan sets out to:

1. Create a new green heart along Creek Street and the Umzimvubu Creek while using infill to establish Main Road as the public heart.

2. Establish a connection between the green heart and the coastal edge to create a waterfront and promenade. Create a connection between the green heart and public heart along Main Road.

3. Establish Main Road as the heart of the campus and town which offers safe access for pedestrians and non-motorized transport.

4. Create spatial hierarchy that prioritizes the pedestrian through a network walkable circulation routes



1. Main road
Reinforce Main Road as a civic core. This is achieved:
- upgrading the public space
- providing spaces for gathering,
- street trade,
- non-motorized transport,
- trees, s
- treet furniture and
- good lighting.



2. Green heart
Redevelop the recreational space as the green heart of the town with:
- multi-purpose sports fields
- kids playgrounds
- outdoor gym
- community gardens
- open green spaces



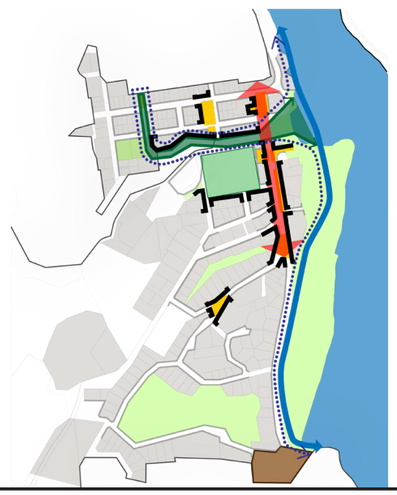
3. Green Link
Redevelop Creek Street into a pedestrian route extenting it all along Umzimvubu Creek with the purpose of:
- reimagining the role of the creek for flood control
- creating a botanical garden to promote edu-tourism
- use green link to connect the green heart, with Main Road and the coast
- creating multiple pedestrian crossings to increase accessibility between town centre, suburb and township



4. Coastal Promenade
Redevelop the coast as a port and a destination point with promenade that wraps around the green link:
- coastal edge is made into a port
- the beachfront is given an edge where people can walk
- the natural, thick vegetation is preserved
- a continuous promenade is created from the coast to the interior of the town
- various activities are dotted along the promenade



5. Publlic Open Spaces
Public open spaces are redeveloped to create a network of public spaces to:
- create a network of multki-purpose public spaces
- some spaces will serve as civic space
- these public spaces are connected along the major routes
- public spaces also link to the green link



6. Infill
Urban campus is used as infill:
- limited to four storey walkup buildings
- both faculty and residential campus buildings as infill
- are used to create hubs of varied activities
- they reinforce the civic function of Main Road
- they create as sense of enclosure for public spaces

Figure 39. *Maps: Conceptual framework process (Author, 2017)*

Urban Design Principles

1. Activate

Reimagine and redifine spaces

Animation and Liveliness

Settlements are intended for human use and are subject to human change and influence. Urban spaces are safer and more attractive when they are active and being used. Well used spaces do not only consist of those where people settle or hover around but extends to mean spaces where people are on the move. Urban spaces where people move through are crucial to public life and good urban design initiates, sustains and magnifies this.

Although also concerned about the activity of a place and its built form in that it is where things happen, animation is more concerned about the management and use of such spaces. It also recognises the need for staged events as catalysts for people to discover and use a space e.g. The Grahamstown Arts Festival.

Inclusiveness and Interaction

While inclusiveness is mostly concerned with equity of access for all people throughout the public environment, interaction is about people making acquaintances in the public realm to create a sense of community.

2. Infill

Human scale development and appropriate grain
Promote compactness and density
Promote diversified functions and mixed use

Enclosure

This relates to the relationship between building heights and spatial width. Enclosure is also a means to make public spaces safe by providing surveillance.

- Built form is used to frame open space or gathering spaces.
- Faculty buildings are used to create a street edge to Main Road and frame spaces in front of civic buildings.
- Campus residential buildings foreground and enclose public open and green spaces.
- Enclosure is also used to give different spaces within the campus distinct identities
- Enclosure will also allow campus buildings to provide connection with historic and important buildings by making them central or axial points to the framed spaces

3. Connect

Public spaces
Complementary amenities
Integrated environmental systems

Structure and Connectivity

A town is more than a sum of its physical parts such as land parcels, layouts, street patterns and its networks of public spaces. They consist of the interlink between these elements to create a coherent functioning whole. How these interact with the topography then affects all other qualities of an urban settlement. What is key in this kind of definition is accessibility of these spaces.

The aim here is to enforce a physical and visual connection to surrounds.

- Main Road is connected to surrounds by providing choice for different transport modes.
- Umzimvubu Creek is minimized as a physical barrier.
- Umzimvubu Creek along with Main Road have deliberate physical connections with the waterfront via footpath or cycle path.
- Open space is visually and physically connected.

Accessibility

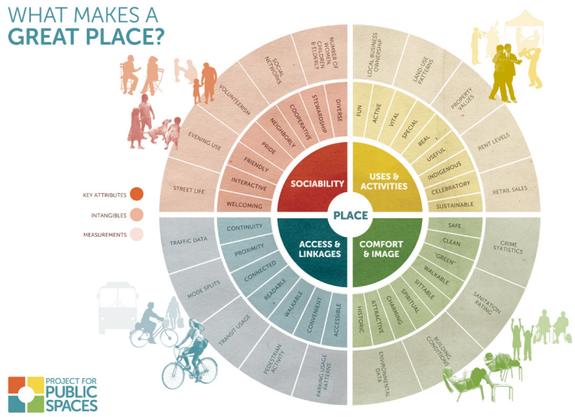
Accessibility is about the principle of equitable access by all citizens to services, facilities, employment, training and recreation through efficient and safe means. Often times the segregation in these towns is not merely geographical but also visual, where the locations and poorer areas are almost "out of sight out of mind." Accessibility principle stresses that "physical access combined with the ability to see into and understand places that cannot be physically reached are crucial qualities of a public environment" (Kokstad Integrated Sustainable Development Plan (KISDP), 2012, pg 18)

4. Placemaking

Reimagine and redifine spaces
Distinctness and identity
Comfort

Identity and place-making

- Identify key heritage features and make them focal heritage elements by:
- Aligning their preservation with the greater public network system by making them clear and visible landmarks.
- Establish a hierarchy of the road network that speaks to the character of each street.
- Identify key sites for infill development along Main Road in order to promote its identity as a high street.



Source: Project for Public Spaces, www.pps.org

These urban design and settlement principles have been adapted from the Urban Design Charter for Victoria (www.dpcd.vic.gov.au).

Region

An effective strategy has to begin at the regional scale in order to acheive the following:

- Localize local economy by first identifying local assets
- Once local assets are recogngized, create sustainable and affordable means of production
- Produce locally, process locally
- Use town and hub for production, processing and distribution
- Lack of space in Port St Johns allows for these functions to be distributed to the surrounding villages thus creating a localized economy.
- Create better connections with the greater region
- This way Port St Johns can be self-sustaining and symbiotic relationships with major towns such as Mthatha, East London and Durban is created

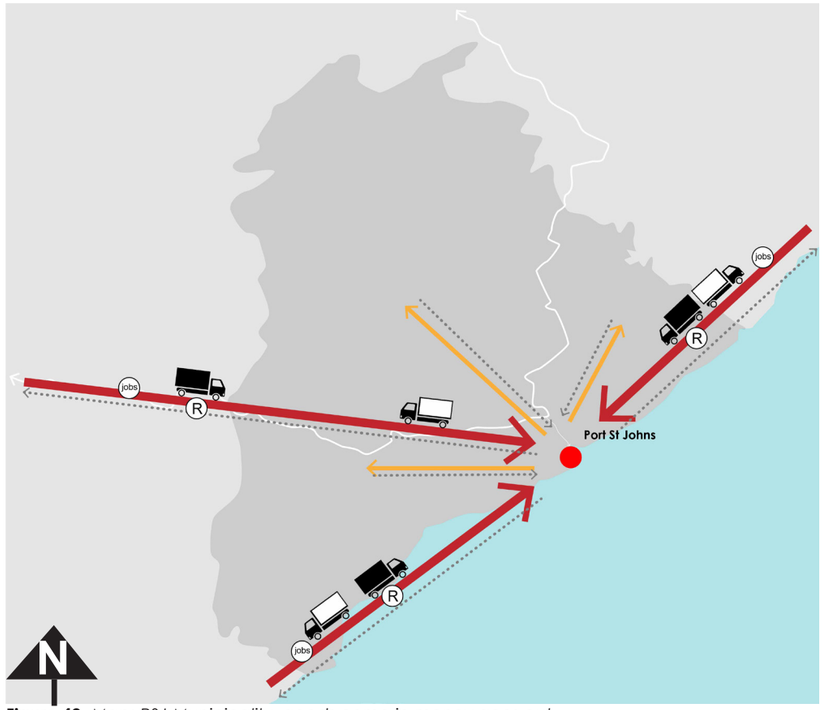


Figure 42. *Map: PSJ Municipality, goods come in-money goes out (Author, 2017)*

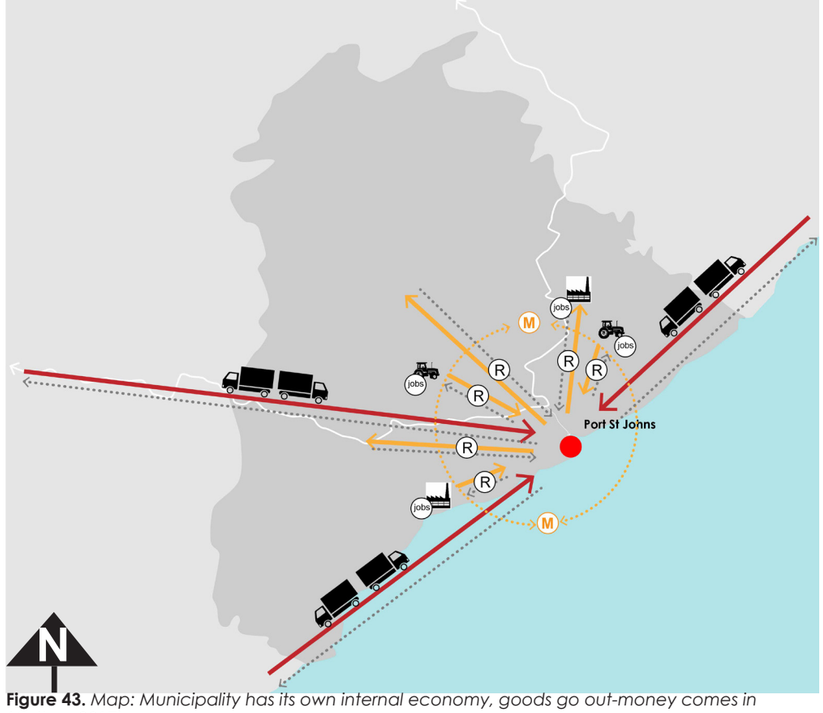


Figure 43. *Map: Municipality has its own internal economy, goods go out-money comes in (Author, 2017)*

Status Quo

Goods come in, money goes out.

Localized Port St Johns

Promote local assets such as local produce, tourism, local brands & markets, Local building materials and building methods.

Port St Johns
Local Economy
Rands
City connections
Local connections
Transfer of services
Efflux
Influx of goods & services
Produce
Processing

Regional Resilience

This asset is primarily concerned with Port St Johns as a regional centre for 130 villages. It acts as a service centre and a retail hub for the municipal region. As the only urban area in the municipal region it should be the hub for education and training. The town also has many tourism assets that are underdeveloped.
Port St Johns has a lot of potential to enhance its regional role.

Challenge

-Port St Johns is an end-of-the-road town, remote from major metropolitan areas and economic engines.
-It relies too much on

Create

-Localized economy between Port St Johns and surrounding villages.
-Due to limited space in the town, nearby villages are to be used as places for production and processing.

Enhance

-Retail
-Local produce
-Local economy between Port St Johns & surrounding villages

Design Strategy

1. Localize

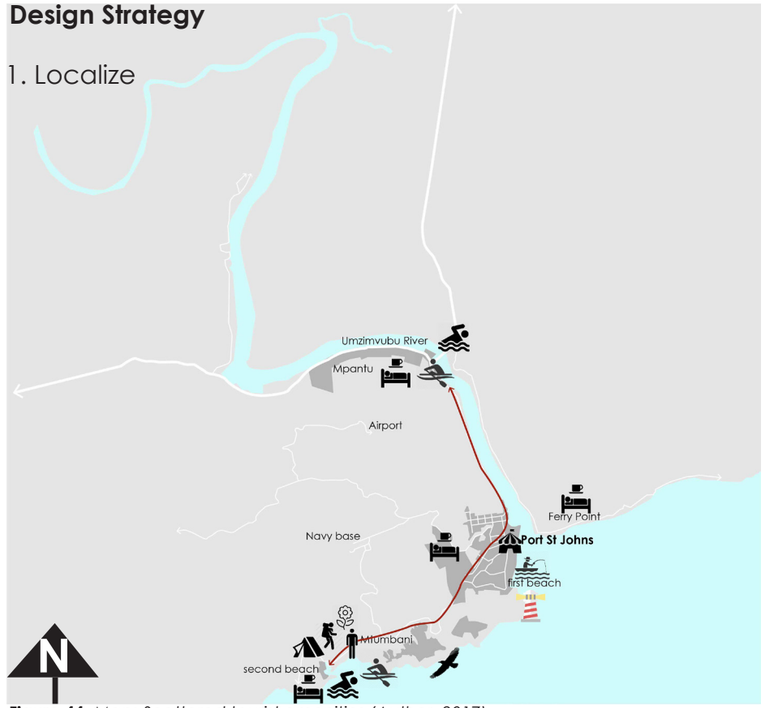


Figure 44. *Map: Scattered tourist amenities (Author, 2017)*

Status Quo

The fragmented nature of the town distributes tourist attractions between Mpantu and Second Beach. As a result the town is used as a through route to these destinations and not as a destination in itself.

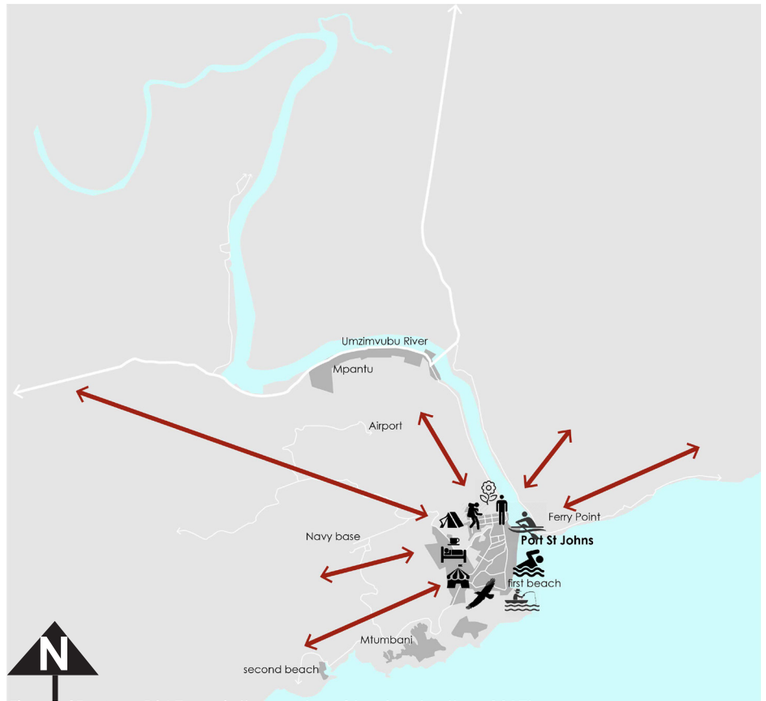


Figure 45. *Map: PSJ Town is the centre of tourism (Author, 2017)*

Localized Port St Johns

Natural and cultural must be promoted as part of its unique local identity. The town centre is the hub or point of departure for all of these.

- People
- Flora
- Hiking, trail, walking
- Birding
- BnB
- Event spaces
- Camping
- Canooing
- Swimming
- Fishing and boating

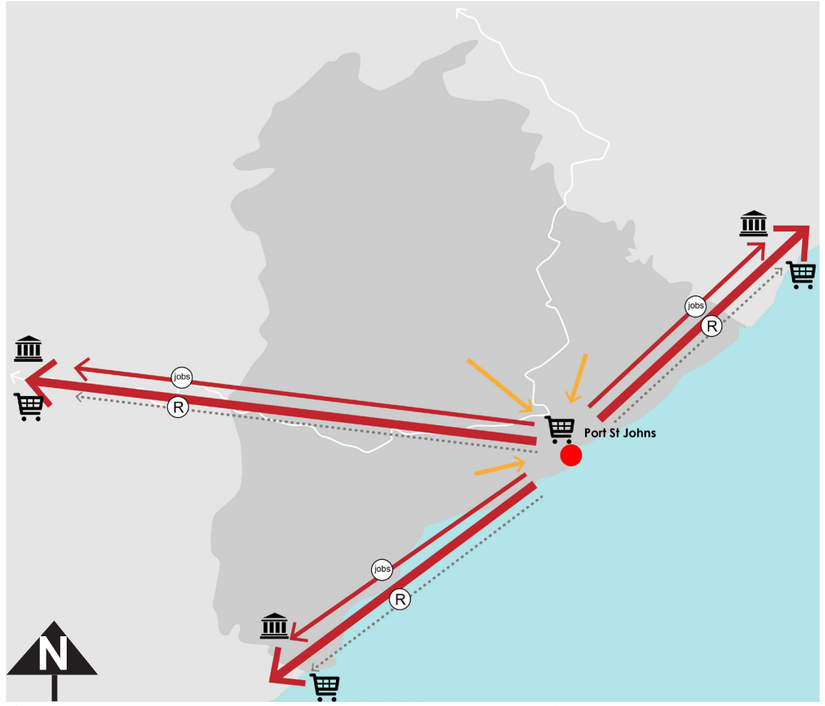


Figure 46. *Map: Scattered higher institutions and higher order services (Author, 2017)*

Status Quo

Surrounding villages come to port st Johns to buy goods, for services, and to have fun. They have the option of going to the nearby big centres namely Mthatha for higher order goods and retail. To do the same people from Port St Johns go to Durban, Pietermaritzburg, Mthatha or Monti. Once matriculated those who have the opportunity move to these towns for higher education and job seeking.

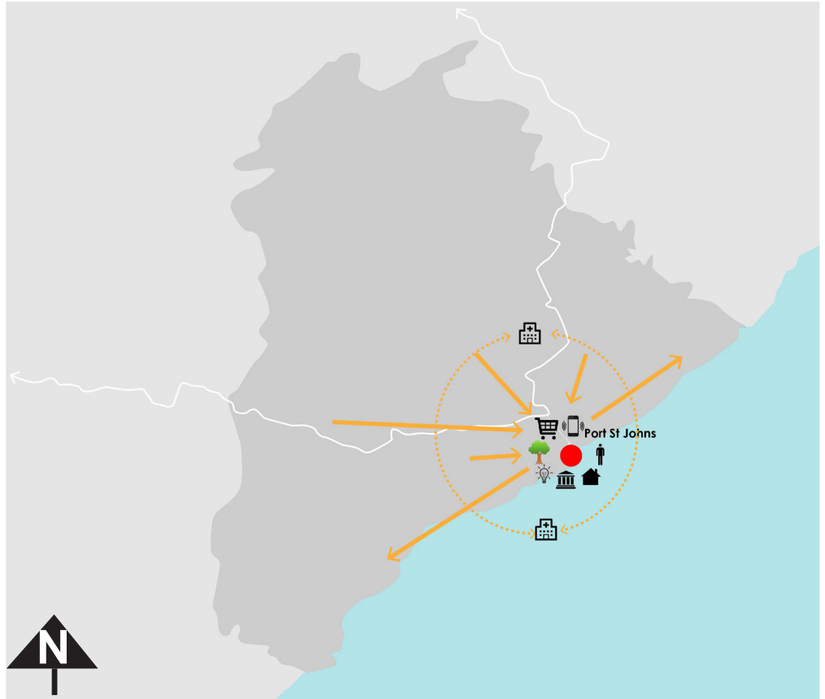


Figure 47. *Map: PSJ Town is the centre of higher learning & higher order services (Author, 2017)*

Localized Port St Johns

Port St Johns must be promoted as a vibrant regional centre, offering plenty of affordable accommodation for tourists and local residents. It must offer a premium tertiary education hub.

- Rands
- Digital hub
- Innovation hu-
- Parks
- Residence
- Shopping
- Tertiary Education institution
- Hospital

Town

Status Quo

The town is fragmented and the people are segregated with very little connections.
Amenities are also dispersed throughout the town.

Access



Figure 40. *Map: fragmented amenities (Author, 2017)*

Integrated Port St Johns

Appropriate amenities must be integrated through the town's physical structure.
Service, economic and education hubs must be clustered around a new public space system.

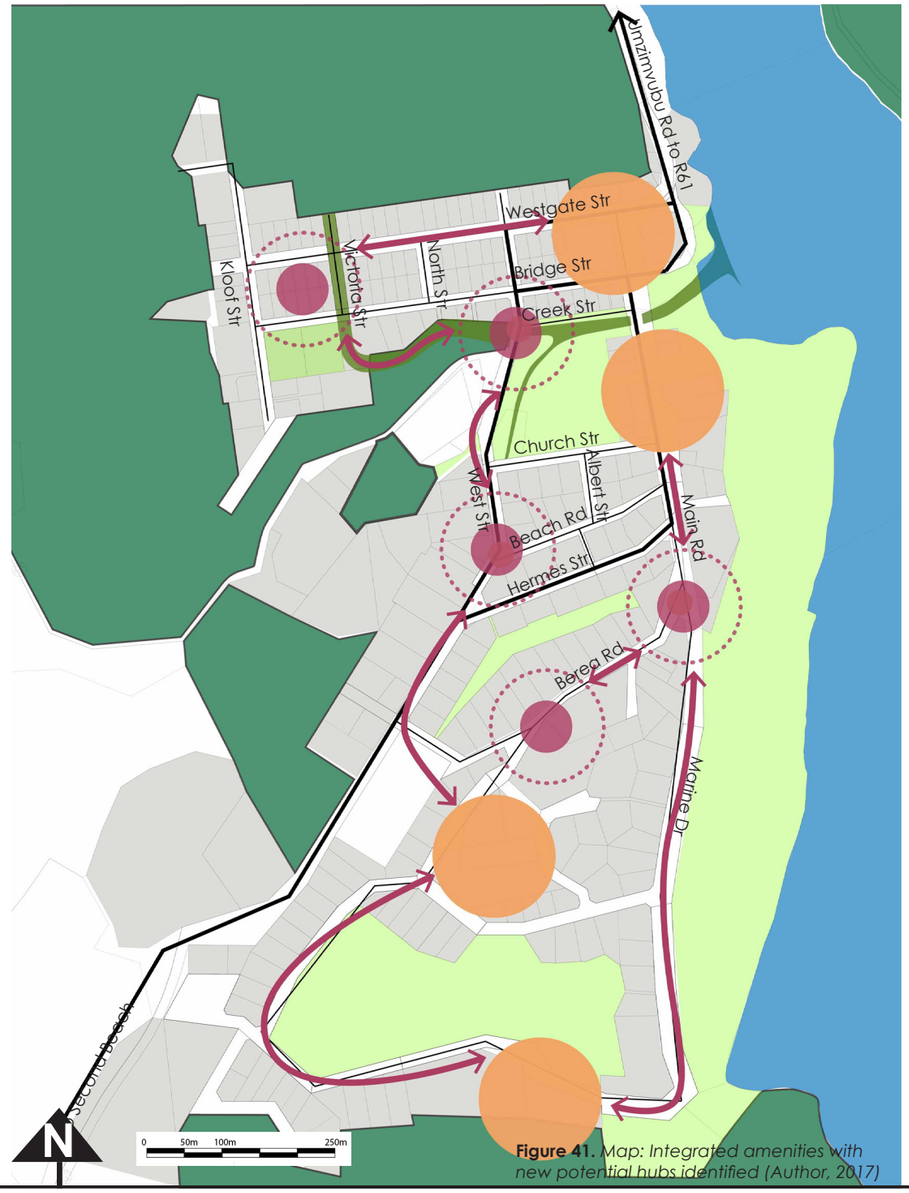


Figure 41. *Map: Integrated amenities with new potential hubs identified (Author, 2017)*

Status Quo

The neighbourhoods in Port St Johns are mono-functional, mo-no-density with limited accommodation options and cars are given priori-ty over people.

Diversify



Figure 48. *Map: PSJ monofunctional hubs (Author, 2017)*

Diversified Port St Johns

All parts of the town must be diversified and inten-sified in order to create complete, safe, and mixed-use neighbour-hoods that provide equal access to opportunity

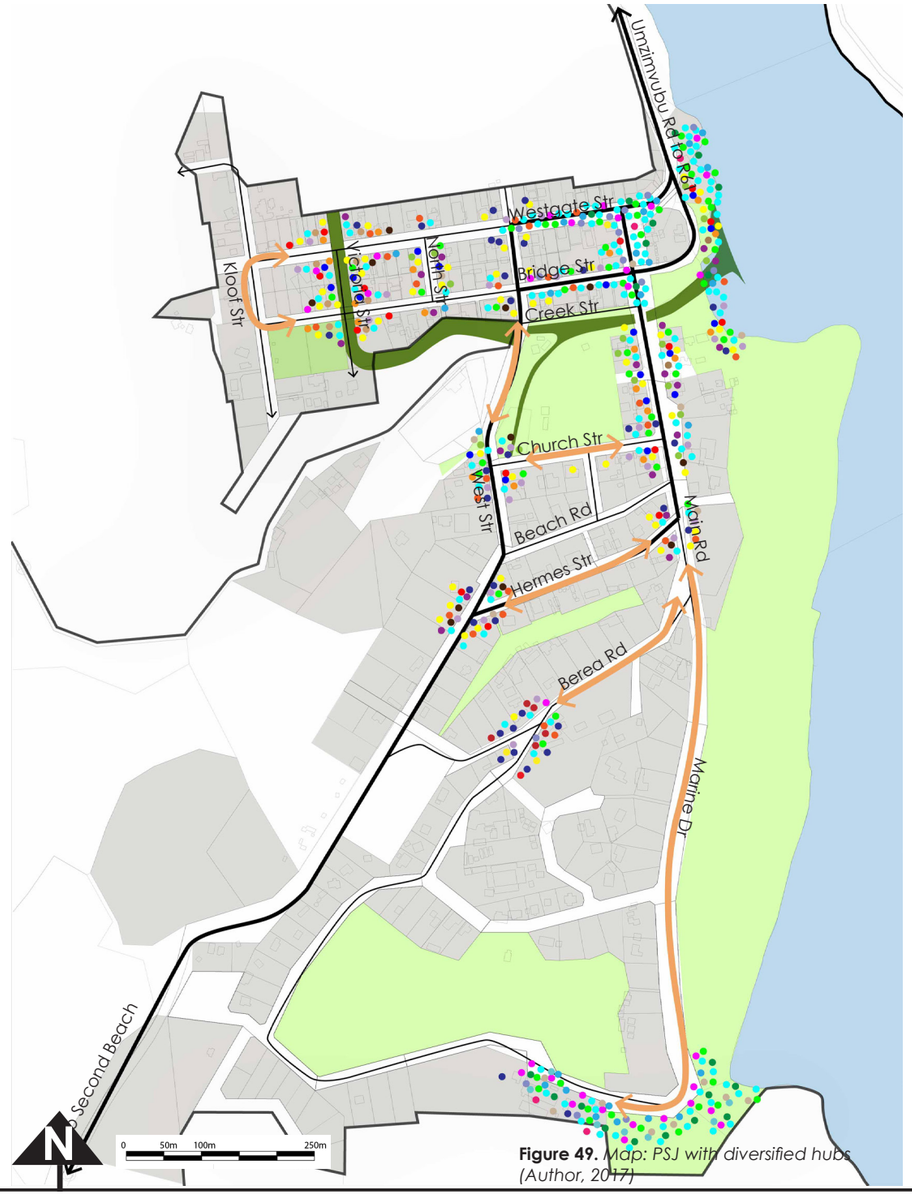


Figure 49. *Map: PSJ with diversified hubs (Author, 2017)*

Nodes and connections

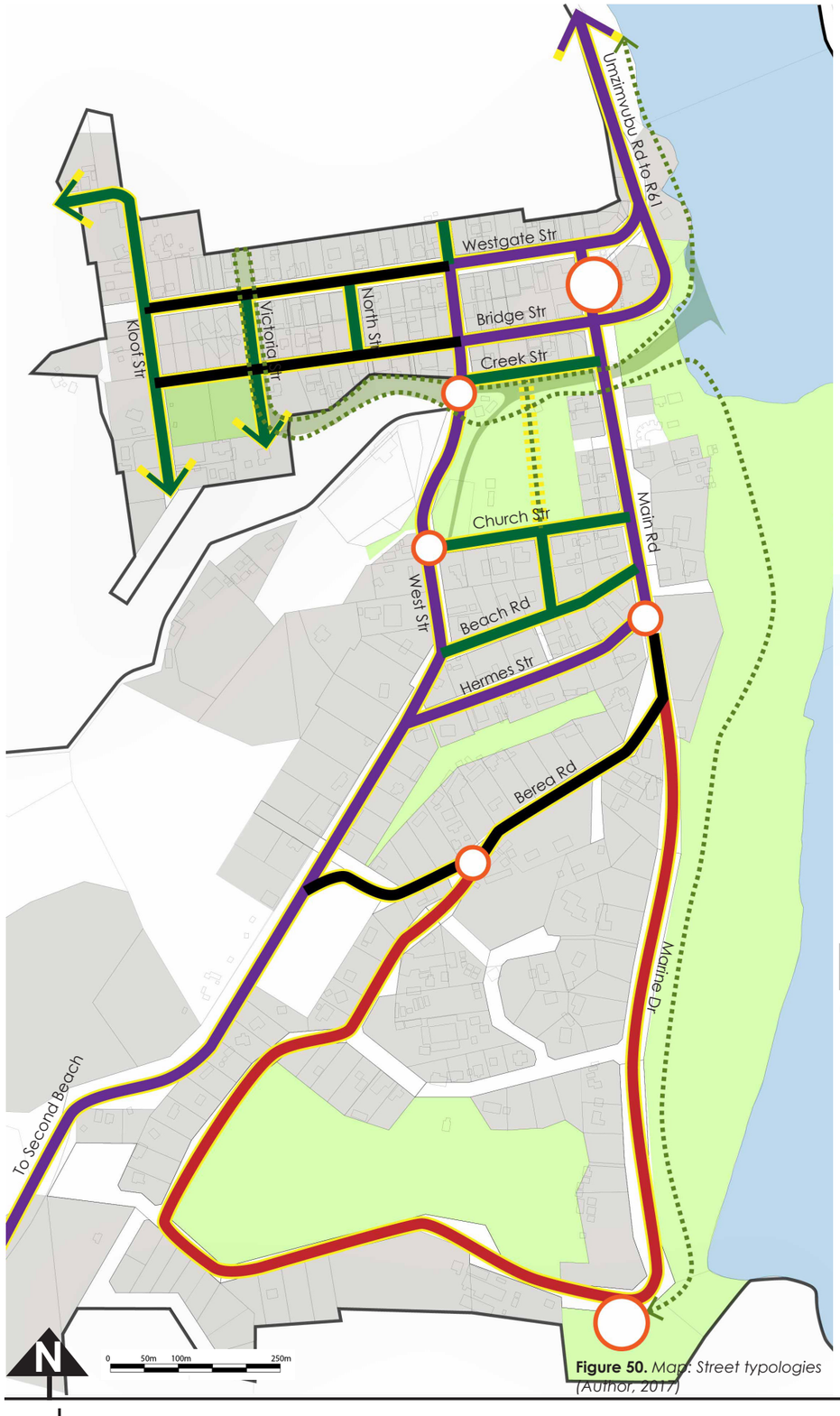
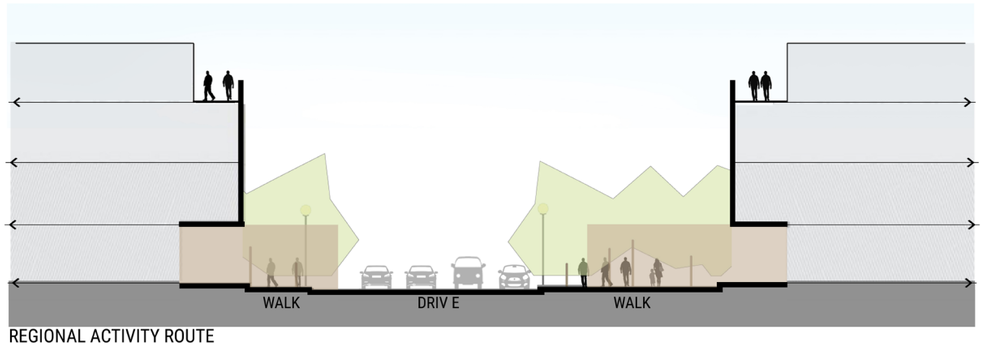
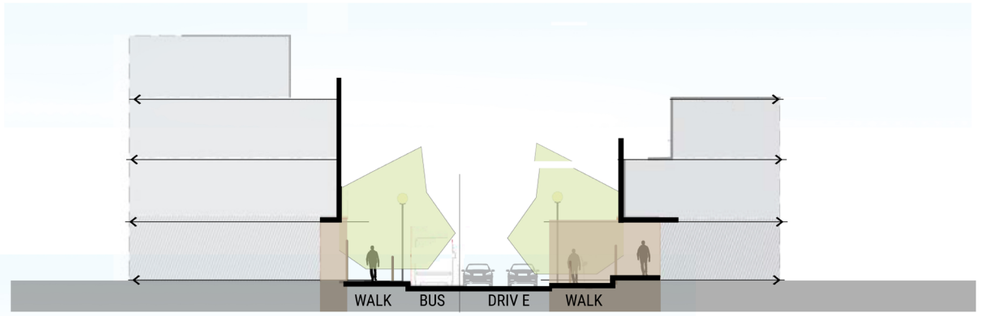


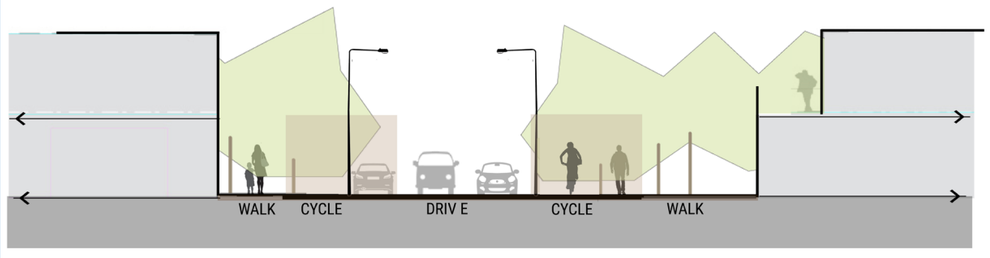
Figure 50. *Map: Street typologies (Author, 2017)*



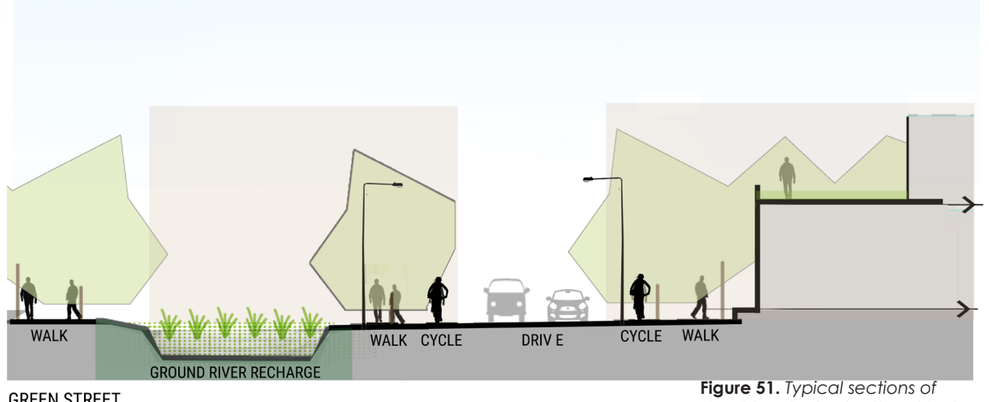
REGIONAL ACTIVITY ROUTE



NEIGHBOURHOOD ACTIVITY STREET



CONNECTOR STREET



GREEN STREET

Figure 51. *Typical sections of street typologies (Author, 2017)*

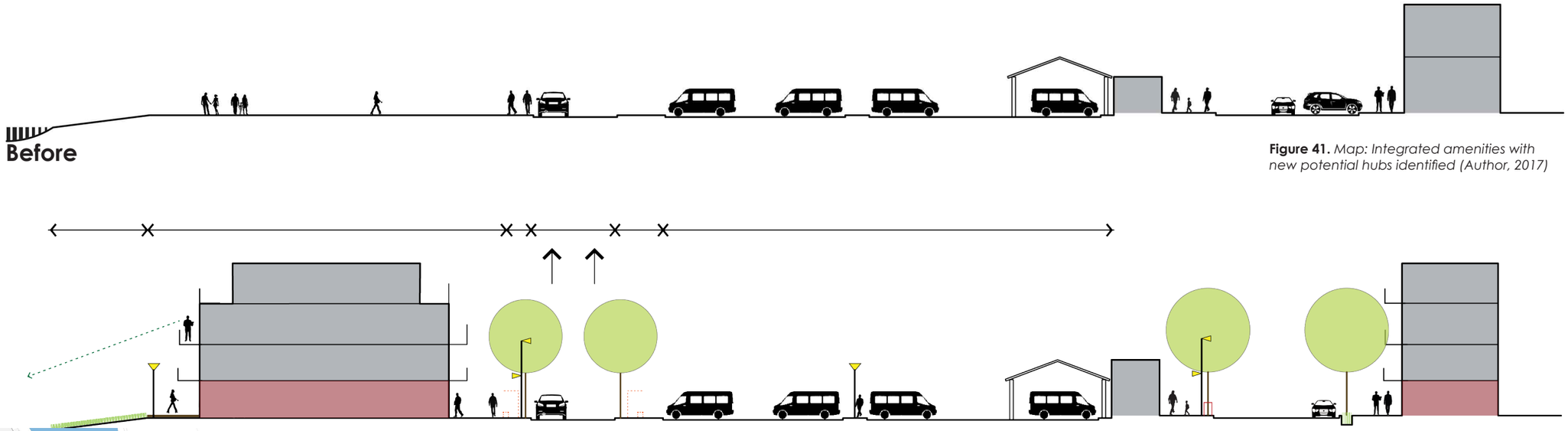
Regional Street (e.g. Umzimvubu Drive): these streets have an important mobility role in that they connect to the regional network of routes providing major access and visibility. They accommodate motorized (private and public) transport and non-motorized transport. Along these routes are prime sites for development and thus they promote mixed use developments, higher densities along the route, higher order ratail, local enterprises. They should therefore support delivery and access requirements (KISDP, 2012, pg 73)

Neighbourhood Street (e.g. Main Road): These are spines of mixed traffic which link local neighborhoods and nodes. They give priority to pedestrians with street furniture, allowing ease of pedestrian crossing, bycicles and public transport. The type of developemnt promoted by these is linear mixed use, support for local businesses and higher residential densities along the route.

Connector Street (e.g. Umzimvubu drive): These streets link one part of the town to another while facilitating easy and safe pedestrian, private and public transport connections. Buildings along these routes are encouraged to have a direct relationship with the street.

In Port St Johns Umzimvubu Dr is the connector street with very little development due to topography. However it plays the role of linking Mpantu to Port St Johns.

Green Streets (e.g. Creek Street): These streets are about providing safe, attractive routes throughout the town. They facilitate connections between parks, creches, playgrounds and form a pedestrian-friendly network of routes.



Reference plan (Author, 2017)

Figure 41. *Map: Integrated amenities with new potential hubs identified (Author, 2017)*

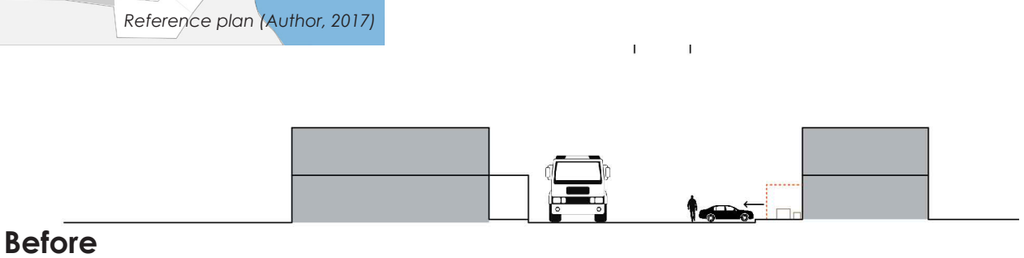
Figure 51. *Section A-A: Through Bridge Street to Westgate Street (Author, 2017)*

Bridge street

Bridge Street is a street that runs east-west of the town centre and is well connected to the existing retail and commercial centre as well as the taxi rank. It is a street that has a dual character; vibrant on the eastern end but space is heavily competed for by pedestrians, traders, cars and trucks.

The guidelines proposes an upgrade of Bridge Street by first changing the parking layout from diagonal to parallel so as to create more space. It is recommended that:

-the roadway be narrowed to 6m with 3m for each lane
-parking reduced from a diagonal approx. 4.9m to parallel parking with 2.5m.
-this frees up the sidewalk to accommodate a 1m utility zone with SuDs, bins, bollards, trees, benches, electric boxes etc
-1.5m sheltered space for traders or displayed merchandise
- unobstructed pedestrian walking space providing a clear line of site



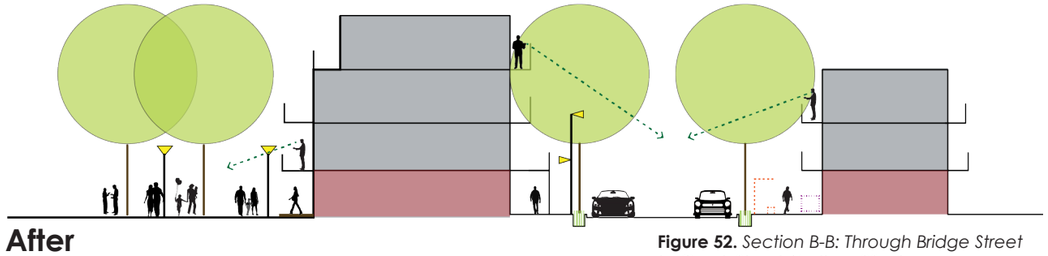
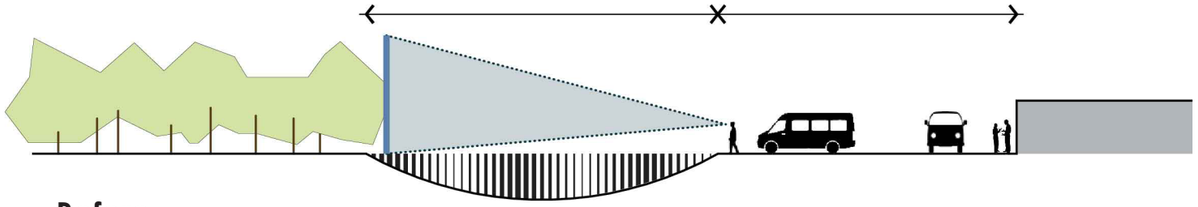
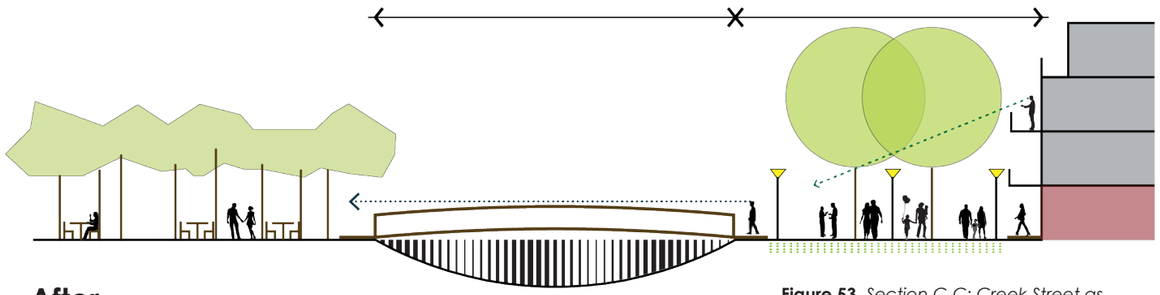


Figure 52. *Section B-B: Through Bridge Street to Creek Street (Author, 2017)*



Before



After

Figure 53. *Section C-C: Creek Street as pedestrian street with pedestrian crossing to park(Author, 2017)*



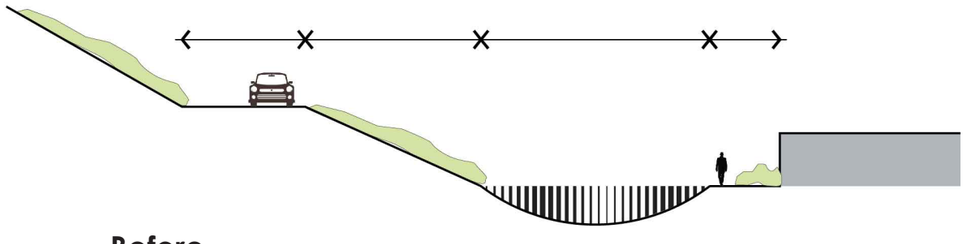
Reference plan (Author, 2017)

Ceek Street

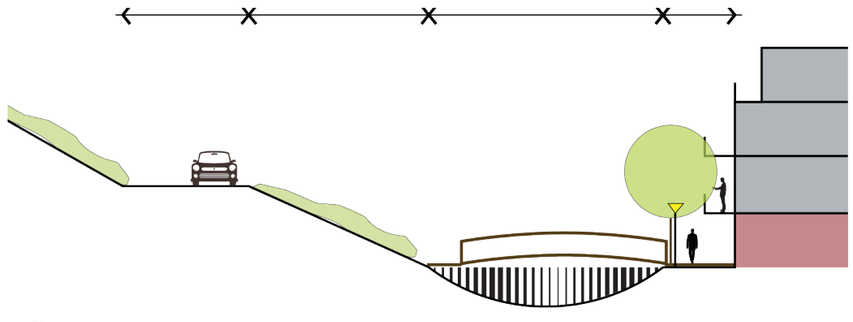
Creek street is an existing street that runs between Main Road and West Street. It is a gravel surfaced street used a space to wash taxis and cars. One side of the street has buildings and the other has the Umzimvubu Creek with reeds and litter edged on some parts by a gabion wall.

It is proposed that Creek Street and the Umzimvubu Creek be integrated to creat a park street, a Green Link connecting the town centre through thr creek to the coastal edge. It is recommended that:

-the street be converted into a pedestrian street with access only for service vehicles
-the integrated green link be converted into a botanical garden or a bioswale with flood controls
-multiple areas for recreational activities
-multiple pedestrian and non-motorized crossings to better integrate the town fabric
-permeable paving be used on Creek Street

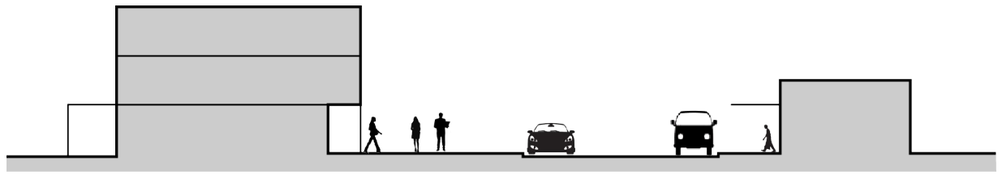


Before

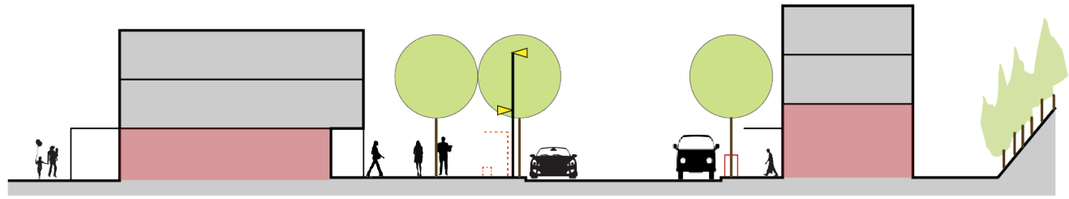


After

Figure 54. *Section D-D: Creek Street, pedestrian walkway, 4-storey bulk with active ground floor (Author, 2017)*



Before



After

Figure 55. *Section E-E: Westgate Street as activity street (Author, 2017)*



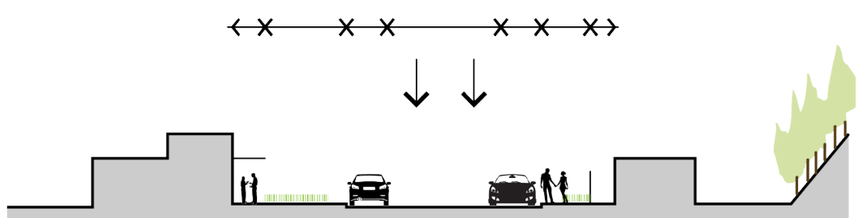
Reference plan (Author, 2017)

Westgate street

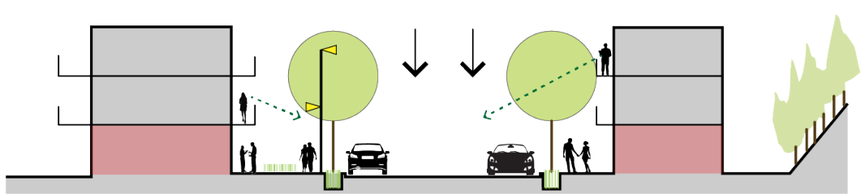
Westgate Street is a street that runs east-west of the town centre and is well connected to the existing retail and commercial centre as well as the taxi rank. It is a street that has a dual character; vibrant on the eastern end but space is heavily competed for by pedestrians, traders, cars and trucks; the western end og the street is quiet and mixed use.

The guidelines proposes an upgrade of Westgate Street by creating facilities for traders. It is recommended that the upgrade includes the following:

-a 6m wide roadway with parallel parking.
-the sidewalk must have a 1m utility zone with SuDs, bins, bollards, trees, benches, electric boxes etc
-1.5m sheltered space for traders or displayed merchandise
-unobstructed pedestrian walking space providing a clear line of site

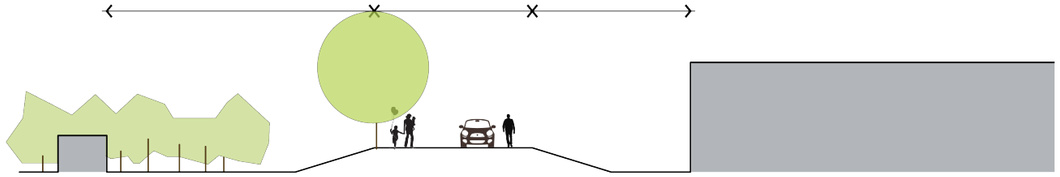


Before



After

Figure 56. *Section F-F: Westgate Street with SuDs and 3 Storey mixed use buildings (Author, 2017)*



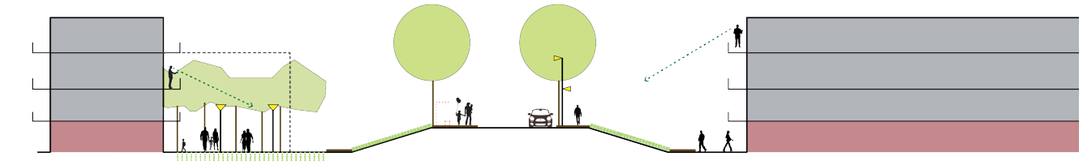


Figure 57. *Section G-G: Main Road (Author, 2017)*



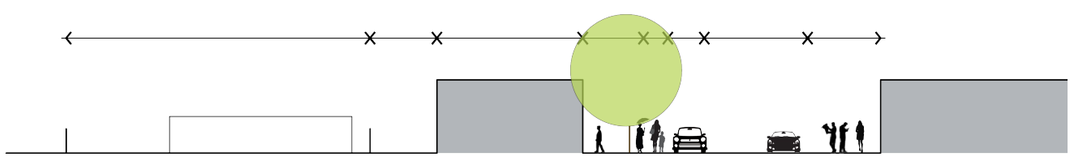
Reference plan (Author, 2017)

Main Road

Main Road is busy street, it is the administrative street of the town running in the north-south direction and connected to the taxi rank and First Beach. The street is wide with low desnsity on either side but has no facilities for traders and the paving on the sidewalk is patchy.

It is proposed that Main Road be upgraded by creating clear roadway with parallel parking. It is recommended that:

-multiple public spaces for recreational activities
-multiple pedestrian and non-motorized crossings to better integrate the town fabric
-permeable paving be used on the sidewalk
-his frees up the sidewalk to accommodate a 1m utility zone with SuDs, bins, bollards, trees, benches, electric boxes etc
-1.5m sheltered space for traders or displayed merchandise
- unobstructed pedestrian walking space providing a clear line of site



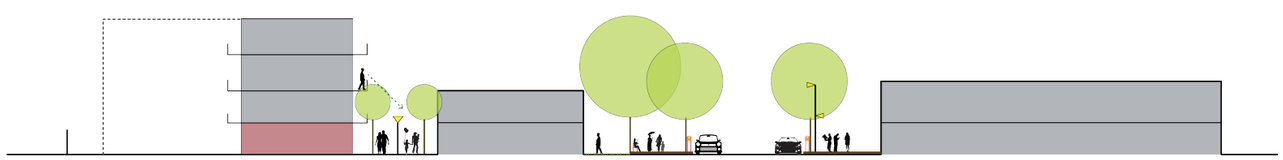


Figure 58. *Section H-H: Main Road though Town Hall & Post office (Author, 2017)*

CHAPTER

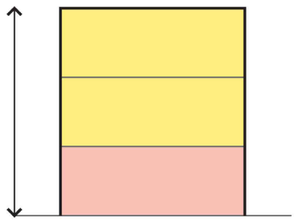
06

Design

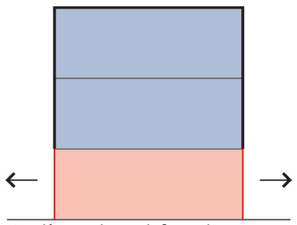
Guidelines

Massing & Urban Form

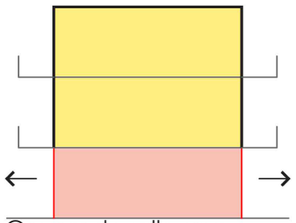
building heights



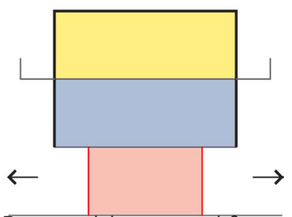
Max Building height 3m



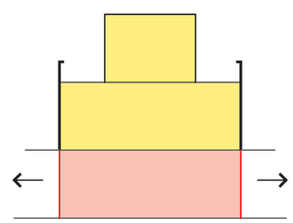
Active street front



Covered walkways

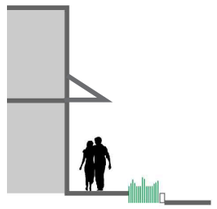


Permeable ground floor
with recessed covering



Public Realm

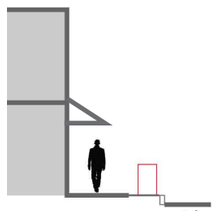
street interface



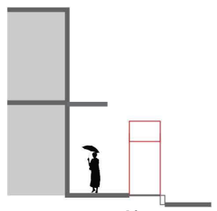
SUD's



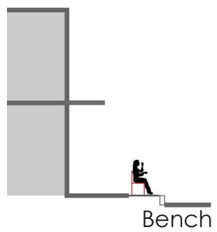
Tree



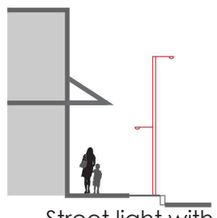
Bin



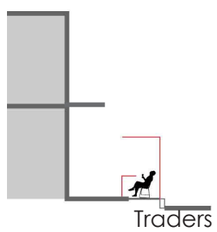
Signage



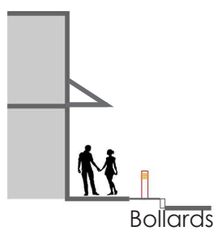
Bench



Street light with
pedestrian arm



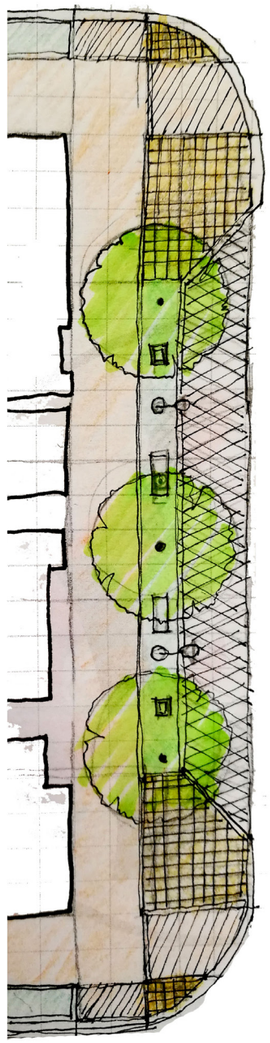
Traders

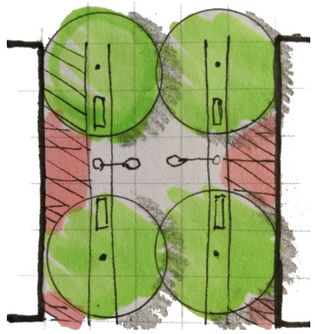


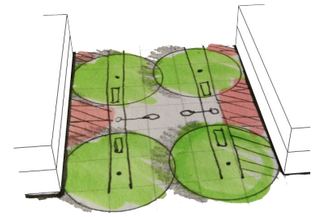
Bollards

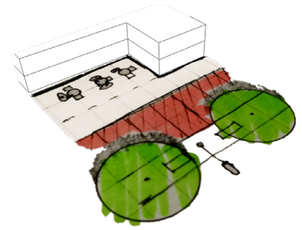
Public Realm

Typical Street Layout









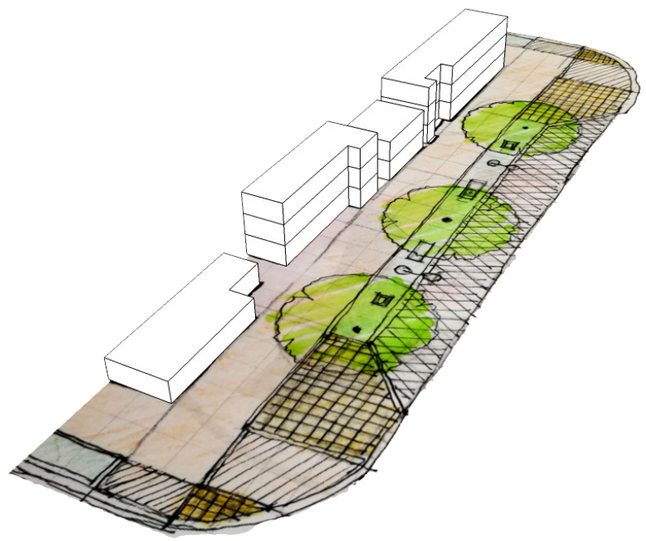


Figure 59. *Conceptual Guideline diagrams (Author, 2017)*

Concept 1

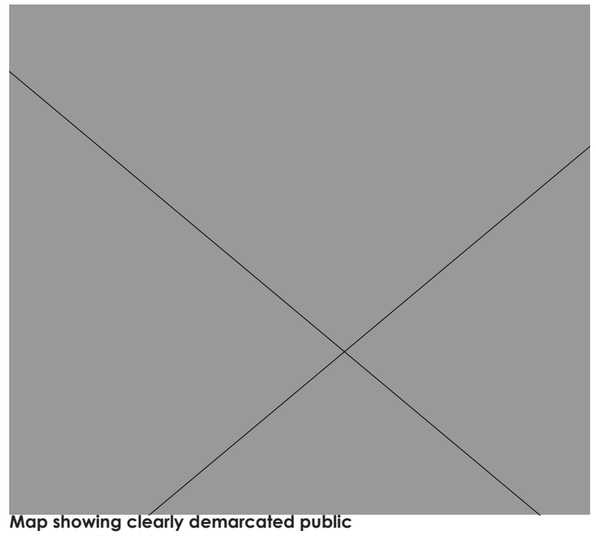


Figure 60. *Concept 1: Coastal edge treatment(-Author, 2017)*

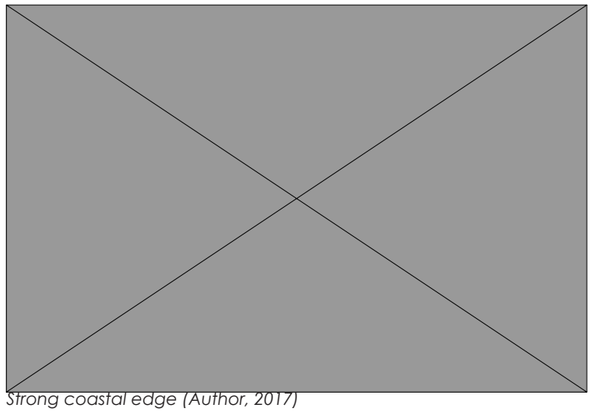
Puerto Vallarta Seafront

Architect: Trama Arquitectos
Area: 20000 sqm
Completion date: 2011
Source: https://www.archdaily.com/526748/malecon-puerto-vallarta-trama-arquitectos

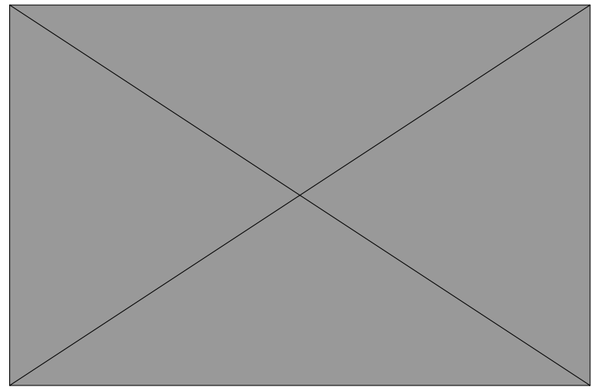
Concept 1: the main focus was on coastal edge treatment and creation of a promenade.



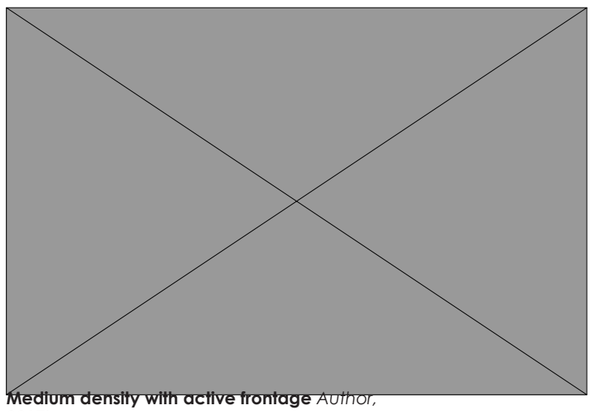
Map showing clearly demarcated public spaces*Author, 2017)*



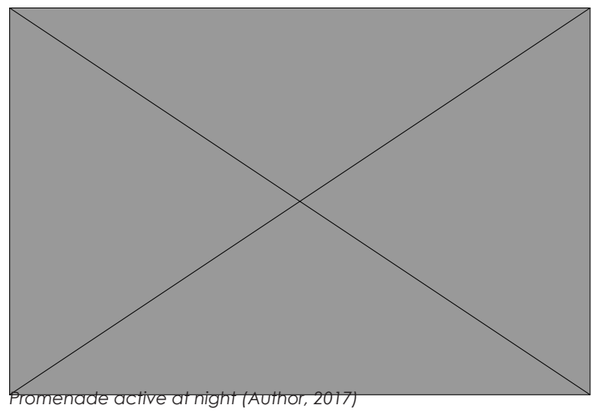
Strong coastal edge (Author, 2017)



Promenade along seafront (Author, 2017)



Medium density with active frontage *Author, 2017)*



Promenade active at night (Author, 2017)

Concept 2

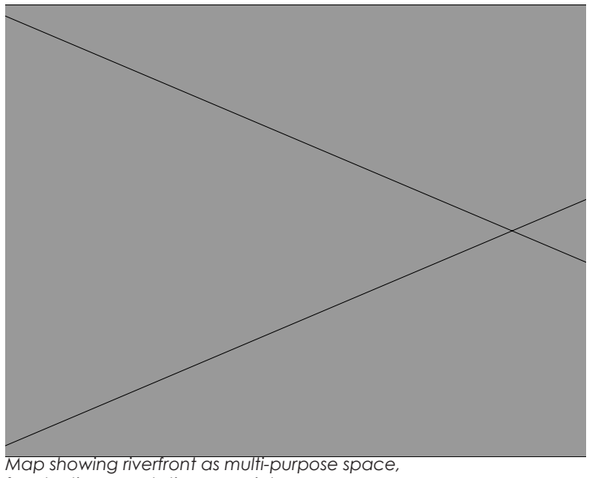


Figure 61. *Concept 2: Riverfront treatment(Author, 2017)*

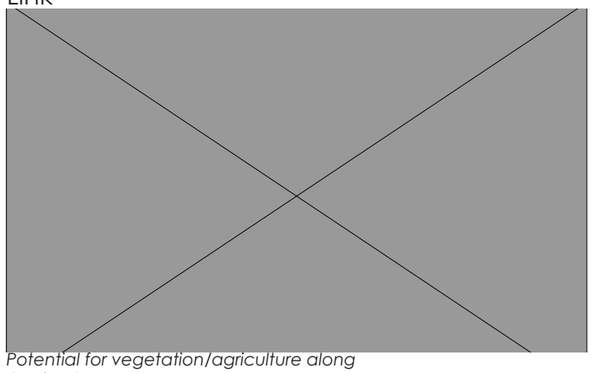
Chicargo River Walk

Architect: collaboration of Chicago Department of Transportation with various architects
Completion date: 2015
Source: https://www.archdaily.com/780307/chicago-riverwalk-chicago-department-of-transportation-plus-ross-barney-architects-plus-sasaki-associates-plus-jacobs-ryan-associates-plus-alfred-benesch-and-company

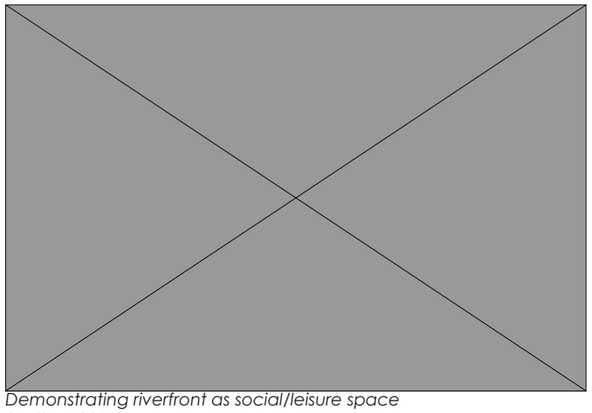
Concept 2: Focusses on the riverfront treatment and creation of public spaces. The concept proposes a pedestrian space with community gardens, applied on the Green Link



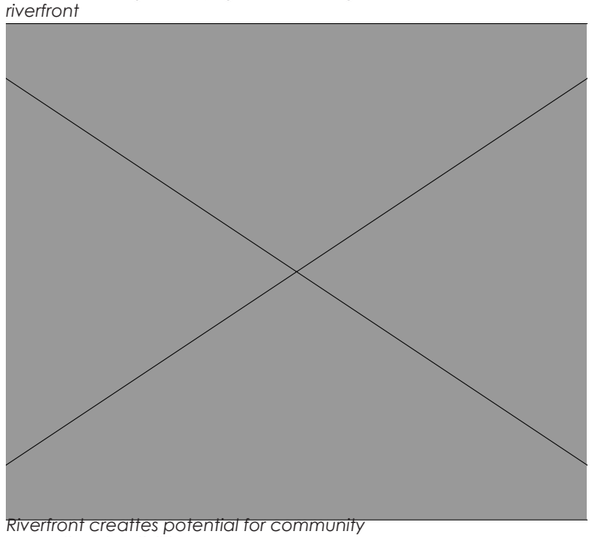
Map showing riverfront as multi-purpose space, for planting vegetation or social space



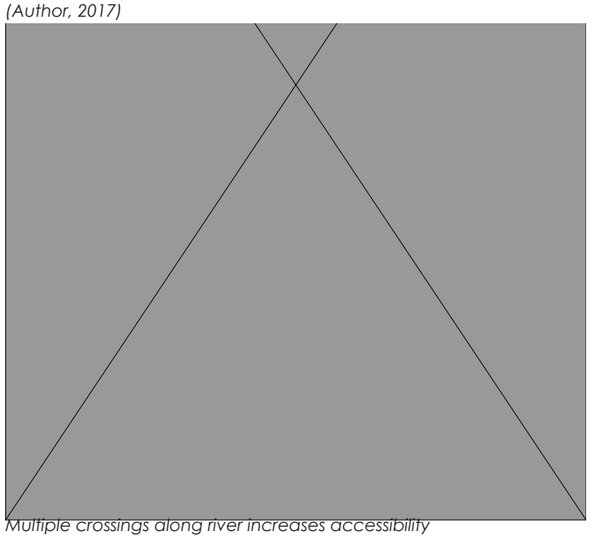
Potential for vegetation/agriculture along riverfront



Demonstrating riverfront as social/leisure space (Author, 2017)



Riverfront creattes potential for community recreational activiities



Multiple crossings along river increases accessibility

Concept 3

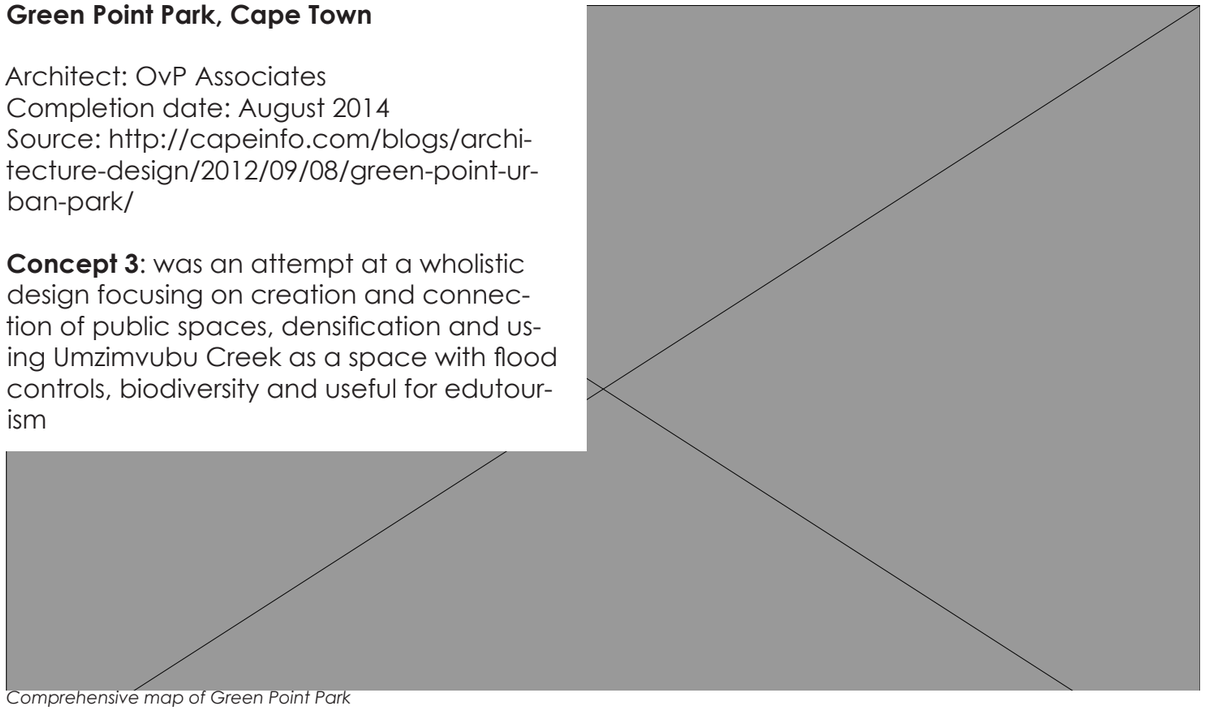


Figure 62. *Concept 3: Public Space treatment (Author, 2017)*

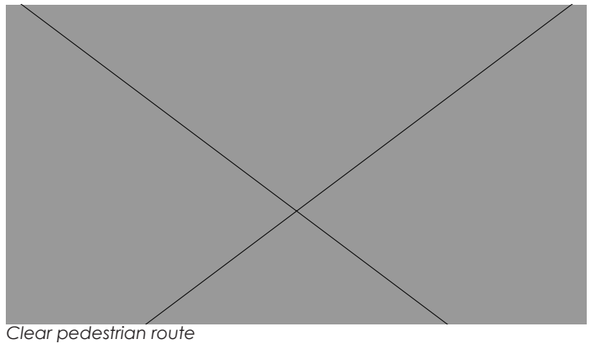
Green Point Park, Cape Town

Architect: OvP Associates
Completion date: August 2014
Source: http://capeinfo.com/blogs/architecture-design/2012/09/08/green-point-urban-park/

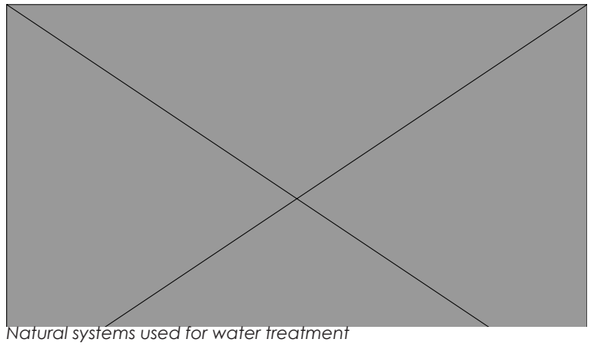
Concept 3: was an attempt at a wholistic design focusing on creation and connection of public spaces, densification and using Umzimvubu Creek as a space with flood controls, biodiversity and useful for edutourism



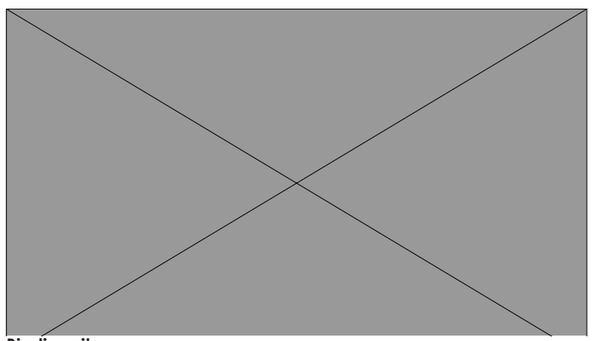
Comprehensive map of Green Point Park



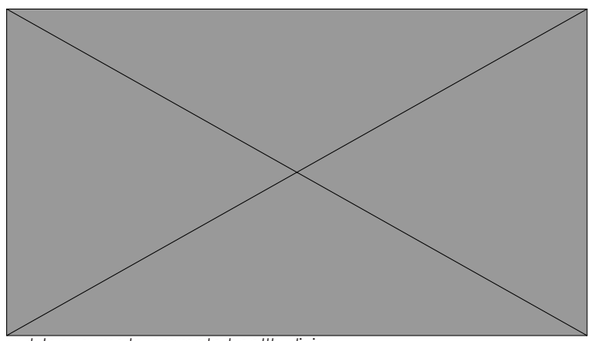
Clear pedestrian route



Natural systems used for water treatment



Biodiversity



outdoor gyms to promote healthy living

Concept 4

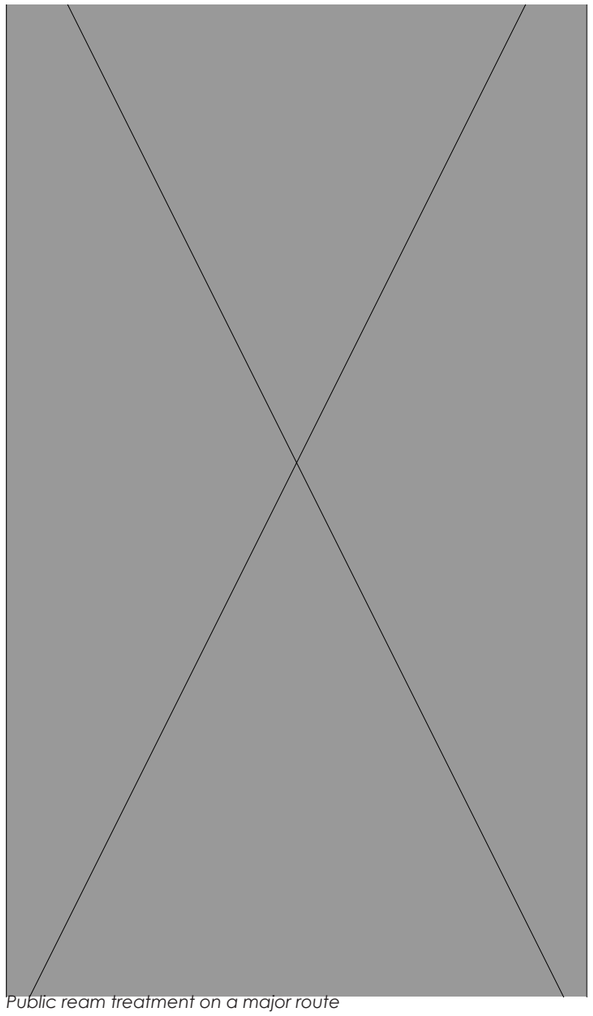


Figure 63. *Concept 4: Main Road treatment (Author, 2017)*

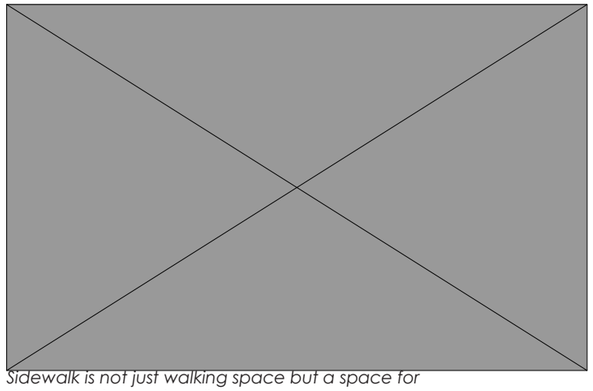
Buffalo Niagara Medical Campus Streetscape

Architect: SCAPE Landscape architecture
Length: 10,0584 km
Completion date: August 2014
Source: http://www.scapestudio.com/projects/buffalo-niagara-medical-campus-streetscape/

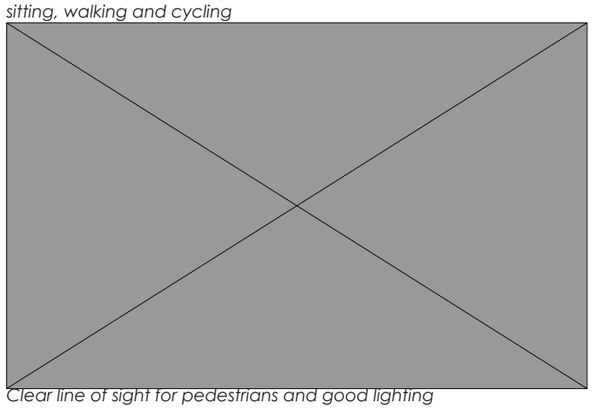
Concept 4: the main focus was on Main Road and how it can be reimagined as a high street that accommodates various activities and social groups.



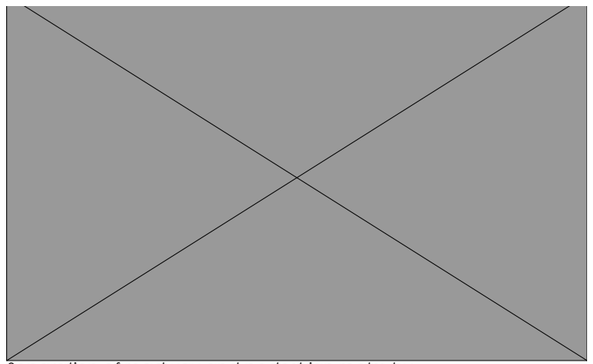
Public ream treatment on a major route



Sidewalk is not just walking space but a space for sitting, walking and cycling



Clear line of sight for pedestrians and good lighting promotes safe



Separation of roadway and pedestrian realm by placing a 'natural barrier'

Streets to be upgraded: Public Spaces



Figure 63. *Map: Public Space used to connect capital web (Author, 2017)*

Public Space

Establish a campus that is integrated into the town and the two get to share a range of activities. Provide a high quality public realm that is conducive for student life, pleasant, is legible and safe for visitor and residents.

- Create a series of forecourt entrances along the Main Road promenade with a clear line of sight for visual transparency
- Establish a system of spaces with distinct characters and a clear divide between public and private.
- Establish a public realm that allows for art, exhibition and creativity
- Establish a public environment which is catered for human comfort through provision of seating, shade, safety from vehicular intrusion where street furniture and trees is the buffer between the vehicular and pedestrian realm.
- Enable for a range of outdoor quite social spaces and public active use spaces within the public realm.
- Passive recreation is allowed through the creation of usable garden spaces along the Green Heart and selected sites within the town.
- Main road is established as the pedestrian heart of both the campus and the town. This sits on a cross axis with the Green Heart of the town which is on Creak Street.
- Create streets that are purely for pedestrian access and some where cars have limited entry.
- Allow for back-of-house access for loading and services in the town and create a schedule where these services do not interfere with the life of the town and campus.
- Rationalize parking to fit in between the trees and sheltered spaces so and distribute it across the town in order to avoid parking lots with hard surfaces and where these appear landscaping is used to soften the surface.
- Allow for universal access into buildings and in the public realm.

Landscape Response

- The landscape concept is about shared spaces between the campus and the town in effect providing both active and passive uses.
- The goal of this concept is
- To establish a network of usable, landscaped spaces where surfacing, placement of trees and general arrangement deals with the surface water and heat island effect.
- To use the rich soil in the town to establish a botanical garden which serves an educational role in that it becomes the responsibility of the campus and is actually part of the curriculum to manicure it and educate the town folk and visitors.
- To establish a functional landscape of community gardens which can be developed by the school then rented out to the town residents and the proceeds go to a fund that helps provide for various community needs.
- Umzimvubu Tributary is used as a catchment area and to pool water and reuse stormwater.
- To preserve some trees that may have heritage value by developing around them and using them for outdoor spaces.
- To use swales, bio-retention areas, and soak-aways as landscape mitigation measures to surface water issues.

Streets to be upgraded: Landscape



Figure 64. *Map:Upgraded sidewalks with trees and street furniture (Author, 2017)*

Heritage Response

- Discover key heritage sites and enhance their character and identity.
- The precinct plan identifies heritage resources and proposes that these should be earmarked with a thorough study of each so as to provide retention and protection of such structures and elements. These need to be integrated into the design and organisation of space suggested by the precinct plan.
- The proposed public space system acknowledges historic buildings and seeks to improve the relationship between the buildings and their immediate context. The public spaces are used as thresholds and forecourts into these buildings. Creativity in new structures in allowed but should be sensitive to heritage structures and at the same time adaptive reuse to the old structures can be allowed within the guardrails of appropriate use of Heritage Policy.

6.4. Pedestrian and cycle access and circulation

- The small scale of Port St Johns makes it very convenient for non-motorized transport modes and this should be encouraged.

6.4.1. Pedestrian Access and Circulation

- A key element to the Precinct plan is the creation of a clear public space system linked by legible pedestrian routes. Design signals are used such as surfacing, buffer zones, with the aim of creating clear front and backs to buildings and spaces, also a clear transition between public and private spaces. Way-finding signage should be ordered in such a way that it is unified and does not clutter the designated area. Traffic calming measures are to be used at key crossings points of the town.

Bicycle Access and Parking

- A culture of cycling as a means of daily mobility should be promoted in the town. Bicycle facilities including, purchase, store and repair need to be introduced to the site. Introduction of designated pedestrian routes allows for accommodation of cycle connections as well.

6.4.3. Universal access

- The location of Port St Johns presents an opportunity to introduce the principles of universal access and multi-modal transport systems. The coastal edge presents an opportunity to become a port or waterfront to host cargo carriers for the transportation of goods.
- Kerbs onto pavements and into buildings should allow easy navigation for wheelchair access. Also readable level and transition signals for the visually impaired should be introduced into the town.

6.5. Vehicular access and parking

- The proposal for minimizing vehicular impact on the town and campus and prioritize the pedestrian aims to:
- Promote non-motorized transport in the town and integrate the existing public transport system.
- Integrate multi-modal transport system for the transportation of goods and create a back-of-house scheduled loading system.
- Reduce parking impact in town by designating sites and incorporating it into buildings.

Built fabric: existing



Figure 65. *Map:Framework on existing built form (Author, 2017)*

Built fabric: new



Figure 66. *Map:Framework on proposed built form (Author, 2017)*

Vehicular Access

- General vehicle access in the town will be rationalized in key outdoor and pedestrian areas. Parking will be reduced on Bridge and Westgate Streets between Main Road and West Street. Parking on Main Road will be limited, none will be allowed in front of the library and HR offices. Creek Street will be pedestrian only with removable bollards for deliveries only.

Parking

- New parking will be littered around the town with clear signage as to where to find it. Parking by the current park will be removed and the space given for a different function. Parking for new campus buildings will be rationalized to adhere to the principles of the Framework.

Deliveries

- An access management plan is needed to regulate deliveries into the town. Multi-modal transportation will assist in reducing the impact of heavy trucks into the town to reduce traffic, noise and improve imageability of the town. Some cargo will be allowed special access where necessary.

Sustainable Engineering

- The campus is the main delivery tool for upgrading the engineering services in the town.Therearearangeofavailablesystems to apply that offer sustainable mitigation measures to deal with water and waste.

Water and stormwater

- Where there are extensive areas of hard surface run of is reduced through the incorporation of permeable surfaces which slows down runoff and allows for porosity.

- The tributary is used as the main collection point and channel for water in the town which enhances the green heart.
- Water collection is done through a series of pools developed for and by the school as part of the curriculum for irrigation, retention, purification and harvesting plant and animal species.
-

Energy

- The introduction of new buildings provides an opportunity to implement natural lighting systems, and solar panels of north-facing walls.
- With anticipated growth old building structures are to be upgraded to support sustainable living.
- Interior spaces must be retrofitted with LEED lighting and motion sensors and energy saving specs must be proposed for all outdoor lighting as well.
-

New Buildings and infill

- New buildings are meant to be infill primarily along Main Road. Residential buildings are arranged along the green heart as a foreground to the space. Design creativity is encouraged for new developments and must promote multi-purpose, human-scaled buildings while encouraging positive outdoor space.
- New buildings are to be structuring elements that promote a cohesive, logical and legible spatial structure. They are to be landmarks and orientating devices offering street surveillance with ground floors that demonstrate a clear gradient of public, semi-public, semi-private and private spaces.
- The maximum height of the buildings in the town is three storeys; all new development must not exceed this height in order to maintain the small scale of the town. It is anticipated that the construction of the new campus will attract certain business and new building and functional typologies to the town therefore rezoning is inevitable for some sites for adaptability.

Operational Principles

1. Reinforce Main Road
Faculty buildings are used as built form to frame Main Road
Central gathering space is created
Allow complimentary functions to diversify land use on Main Road
2. Create accessibility for all transport modes
Make town function best on foot
Offer choice for all transport modes
3. Use landmark urbanism
Make robust faculty buildings
Save heritage resources
4. Activate the waterfront
Improve quality of the waterfront and its immediate surrounding spaces
Improve permeability and connectivity of surrounding area towards waterfront
5. Stimulate temporary use
Promote temporary land users to trigger and generate interest in site

Existing buildings



Figure 67. *3D of Framework of upgraded public realm on Existing built form (Author, 2017)*

2040 Vision: Port St Johns campus town



Figure 68. *3D of Framework of upgraded public realm on Proposed built form (Author, 2017)*

2040 Vision: Land Uses

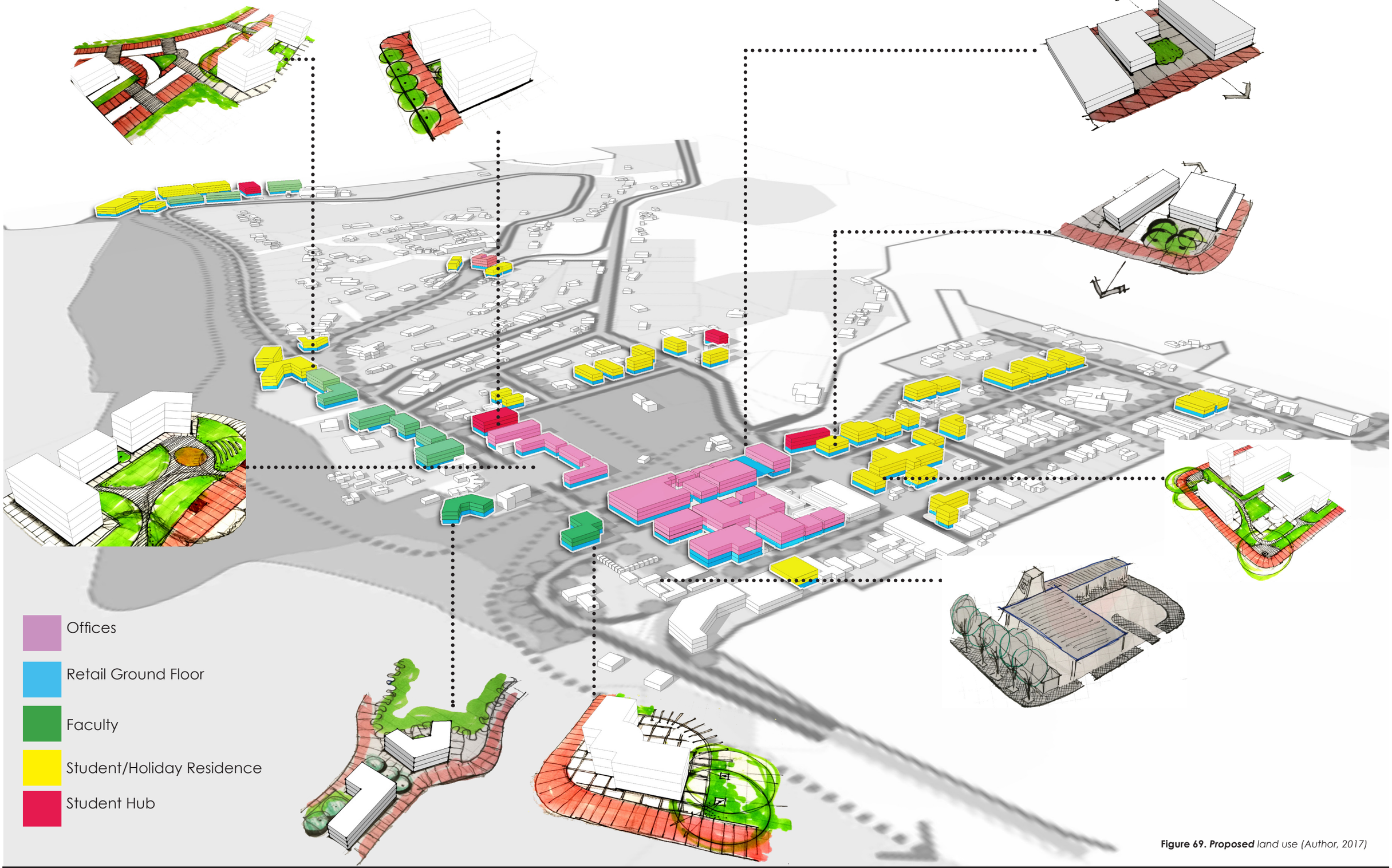


Figure 69. *Proposed* *land use (Author, 2017)*

Phase 1: 1-5 years

Catalystic Project

Central university building
Administration office
Library
Residences
Faculty Building
Offices





Figure 70. *Phase 1: Development of admin buiiding, classrooms and residence(Author, 2017)*

Phase 2: 5-10 years

Faculty Buildings & Supporting amenities

Additional faculty buildings
Digital library
Market space
Residences
Offices



Figure 71. *Phase 2: expantion of campus, offices and residences (Author, 2017)*

Phase 3: 10-15 years

Residences and student hubs

Bulk student residences
Student hub with lounge, cafe & relaxation



Figure 72. *Phase 3: Densification around public open spaces (Author, 2017)*

Phase 4: 15-20 years

Diversified campus

Additional faculty buildings
Additional supporting amenities to enhance previous phases



Figure 73. *Phase 4: Main Road undergoes a major infill with mixed use buildings that create an urban edge (Author, 2017)*

Phase 5: 20 + years

Port St Johns as institutional hub

Beacon of premium tertiary education
Affordable accommodation
Tourist hub
Vibrant urban node



Figure 74. *Phase 5: 2040 vision of Port st Johns as and campus town (Author, 2017)*

Phase 1: 1-5 years





Catalystic Project

Central university building
Administration office
Library
Residences
Faculty Building
Offices

Phase 2: 5-10 years





Faculty Buildings & Supporting amenities

Additional faculty buildings
Digital library
Market space
Residences
Offices

Phase 3: 10-15 years





Residences and student hubs

Bulk student residences
Student hub with lounge, cafe & relaxation

Phase 4: 15-20 years





Diversified campus

Additional faculty buildings
Additional supporting amenities to enhance previous phases

Phase 5: 20 + years





Port St Johns as institutional hub

Beacon of premium tertiary education
Affordable accommodation
Tourist hub
Vibrant urban node

Stage 1:

- Find out
- Liaise with existing business, retail and municipality to tap into resources
- Identify priority developments

Stage 2:

- Activate the town, introduce Campus
- Use curriculum to implement priority developments (Second year of practical)
- Curriculum in final year requires mentorship of earlier years
- Use river to create green heart which provides for leisure, nurture, education and recreational resource
- Creating industry out of faculties

Agriculture – Divert watercourse of the river for irrigation, storage, and water cleaning. Create community gardens to be rented in order for funds to build a community trust. Create botanical gardens for educational tourism. Tap into greater school community to start school excursions to the green heart yearly.
Construction – Create draftsmanship skills. Experiment with new forms of construction and material use. Have learners construct the green heart and tap into the larger construction activities happening in the greater municipality, as part of curriculum
Tourism and hospitality – Learners apply practical skills for management of school residences during peak holiday periods.
Business and IT – Using agricultural produce to teach learners to trade as part of the business curriculum. Use IT skills to assist local businesses improve business function as well as teach basic computer skills at the surrounding schools.

Stage 3:

- Sustain successes
- Reinforce Main Road as a primary link between town and first beach
- Use faculties to generate economy for school and community
- Use the industries created to activate the waterfront through fishing water sports, snorkeling etc.
- Conserve natural resources
- Activate surveillance through construction of residential component

Figure 75. *Composite (Author, 2017)*

CHAPTER

07

Conclusion

Conclusion

Many small towns in South Africa find themselves on the backfoot of of globalization as focus tends to shift towards large metropolitan areas. They have received inconsistant attention from government over the decades but now many face stagnation and decline even to the point of despondency.

Port St Johns faces the same challenge. The municipality is rife with poverty with most of its population living on government grants. Port St Johns is a small, end-of-the-road, tourist town in the Wild Coast. It is the only urbananized node and the district service centre for the enitre municipality serving about 130 villages. It experiences a seasonal population influx which is the main boost for its economy however after the holiday period the town experiences a dry spell.

This research has established that the spatial make-up of the town such as the impenetrable adulating mountain boundary, fragmented urban fabric, lack of connections, cluttered public environment and lack of surface treatment are all compounding factors with a significant role in perpetuating the challenges and stagnation the town faces.

The approach taken by this research is that of scenario planning where the tailored strategy of insertion is not the only but one of the of scenarios to ensure the town realizes its revitalization. The consecutive nature of implementation through the phasing strategy will allow time to experiment with new ideas and commense a participatory relationship between private and public interests.

The strategy set up for the area in this research is one that allows Port St Johns to realize its strengths and capitalize on them. The guiding principles provided are incremental in nature in order to accommodate the shortfalls of capacity and lack of resources.

These principles are meant to give focus and a clear vision for the town which is to capture the momentum gained by the influx of people during holiday months. The additional demographic of students are proposed as the catalyst to maintain this momentum and a gradual reimaging of the public environment is innevitable and Port St Johns has a unique "sense of place."

The broad scope of this research is limited by the narrow lens of urban design and its ability to resolve economic problems. This leaves much to be desired in terms of further research.

Clearly there is need for a greater focus on how much population the town can accommodate for extented periods of time and the impact this would have on the character of the town. Accessibility is also a key research area especially with regards to universal access for people with physical challenges.

More research should be done to determine the limits of urban design in impacting urban spaces and places.



Figure 76. *Second beach during holiday period, more active than usual (Author, 2017)*

REFERENCES

REFERENCES

Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I. And Angel, S., 1977, A Pattern Language: Towns, Buildings and Construction, Oxford University Press

Atkinson, D,. (2008), *Inequality and economic marginalisation: Creating access to economic opportunities in small and medium towns*, TIPS, South Africa, viewed 1 March 2015, from http://www.tips. org.za/files/u65/economic_ opportunities_in_small_ towns_-_atkinson.pdf

Attoe, W. & Logan, D., (1989), *American Urban Architecture: Catalysts in the design of cities*, University of California Press, USA

Baird, D., Maxwell, J., Porta, S., Romice, O., (2014), *Urban Studies, Alterations in scale: Patterns of change in main street networks across time and space*, vol 51(16) 3383-3400

Cecilia Kunseh E. Betek & Ndze Denis Jumbam (2015) *Small scale vegetable production: a case study of Port St Johns, Eastern Cape Province, South Africa, Transactions of the Royal Society of South Africa*, 70:1, 41-45, DOI: 10.1080/0035919X.2014.985759 To link to this article: http://dx.doi.org/10.1080/0035919X.2014.985759

City Think Space, 2012, Kokstad Integrated Sustainable Development Plan

Cross, C., Kok, P., Todes, A., Van Zyl, J., Wentzel, M., (2010), *Urban Forum: Contemporary South African Urbanization Dynamics*, vol 21:331-348

Cullen, G., 1961, *The Concise Townscape*, Architectural Press, Great Britain

Dewar, D. &Uytenbogaardt, R., (1995), *Creating Vibrant Urban Places to live: A Primer, Headstart Development*, New Housing Company (NewHCo), Cape Town

Fransen, H., 2006, *Old Towns and Villages of the Cape*, Jonathan Ball Publishers, Johannesburg

Ministry of Cooperative Governance and Traditional Affairs, 2014, Integrated Urban Development Framework,31

Rudlin, D., (2007), *'Towns: Learning from Ludlow, Lincoln & St Ives'*, in Evans, B. & McDonald, F., Learning From Place, pp. 46-66, The Academy of Urbanism, London

Salingaros, N., 2005, *Principles of Urban Structure*, Techne Press, Amsterdam

Tibbalds, F., (1992), *Making People Friendly Towns: Improving the public environment in town and cities*, Longman Group UK, Ltd

Todes, A., (2013), *'Spatial targeting: Lessons from South African Experience', background report for the workshop on Spatial targeting*, Wits University, 3 to 4 July 2013

Urban Design Charter for Victoria, viewed 01 June 2014, from http://www.dpcd.vic.gov.au/planning/urbandesign/what-is-urbandesign

Wallhasper, J., (2007), *The Great Neighbourhood book: A Do-it-Yourself guide to Placemaking*, New Society Publishers, Canada

Wessels, J,. (2012), *Small towns: development potential or poverty traps? Making sure place doesn't take preference over people, presented at the Towards Carnegie III: Strategies to Overcome Poverty & Inequality*, University of Cape Town, South Africa, 3 to 7 September 2012, viewed 01 March 2015, from http://carnegie3.org.za/docs/papers/293_Wessels_ Small%20towns%20-%20%20development%20potential% 20or%20poverty%20traps%20-%20making% 20sure%20place%20doesn%27t%20take%20 preference%20over%20people.pdf

http://www.academia.edu/1005510/The_Role_of_Small_Towns_in_South_Africa_and_their_Regeneration_ The_case_of_Amathole_District_in_the_ Eastern_Cape_South_Africa

Branson N, Hofmeyr C & Lam D (2014, Progress through school and the determinants of school dropout in South Africa. Development Southern Africa, 31(1): 106-126.)

Education, training and the 'precariat': An overview of the South African education and skills landscape http://www.dhet.gov.za/brics/Content/Papers%20for%20publication/SA/BRICS%202013%20paper.pdf
Accessed 06/11/16

Gustafsson M (2011) The When and How of Leaving School: The Policy Implications of New Evidence on Secondary Schooling in South Africa. Stellenbosch Economic Working Papers No. 09/11.

http://dspace.africaportal.org/jspui/bitstream/123456789/33066/1/Vocational_education_in_South_Africa.pdf?1
Accessed 11/10/16

World TVET Database South Africa http://www.unevoc.unesco.org/wtdb/worldtvetdatabase_zaf_en.pdf
Accessed 06/11/16

Vocational education and training for sustainability in South Africa http://www.lmip.org.za/sites/default/files/documentfiles/Vocational%20education%20and%20training%20for%20sustainability%20in%20South%20Africa.pdf
Accessed 06/11/16

Economic benefits of vocational education and training in South Africa https://www.cityandguilds.com/~/media/Documents/news-insight/dec-15/CG-Group%20South%20Africa%20pdf.ashx
Accessed 06/11/16

Skills beyond school review of South Africa https://www.oecd.org/edu/skills-beyond-school/a-skills-beyond-school-review-of-south-africa.pdf
Accessed 06/11/16

Pasted from <file:///D:\Port%20St%20Johns%20Thesis\Last%20Stage\Literature%20review_2016.docx>

http://www.portstjohns.org.za/historyphotos.htm

BIBLIOGRAPHY

Carr,T., Francis, M., Rivlin, L. & Stone, A., 1992, *Public Space*, Cambridge University Press, United States of America

Ching, F., 1979, *Architecture: Form Space and Order*, Litton Educational Publiching, New york

Gehl, J,. 1980, Life Between Buildings: Using Public Space,Van Nostrand Reinhold Company, New York

Hayward, R. & McGlynn, 1993, *Making Better Places: Urban Design Now*, Centre for Urban Design, Great Britain

Lang, J., 2004, *Urban Design: A Typology of Procedures and Products*, University of New South Wales, Sydney

Leggitt, J., 2002, *Drawing Shortcuts: developing quick drawing skills using today's technology*, John Wiley and Sons, New York

Oliver, S., 1979, *The Sketch*, Van Nostrand Reinhold Company, New York

Schenk, L., 2013, *Designing Cities: Basics, Principles, Projects*, Birkhauser Verlag GmbH, Germany

White, W., 1988, *City: Rediscovering the center*, Doubleday, New york